SECURITY

AD-A209 641 NTATION PAGE

Form Approved
OMB No. 0704-0188

1a. REPO
Unclassified

1b. RESTRICTIVE MARKINGS

2a. SECURITY CLASSIFICATION AUTHORITY

ELECTE
JUL 05 1989

3. DISTRIBUTION/AVAILABILITY OF REPORT
Approved for public release;
Distribution unlimited

2b. DECLASSIFICATION/DOWNGRADING SCHEDULE

4. PERFORMING ORGANIZATION REPORT NUMBER(S)
37-89

5. MONITORING ORGANIZATION REPORT NUMBER(S)

6a. NAME OF PERFORMING ORGANIZATION
US Army-Baylor University
Graduate Program in Health Care

6b. OFFICE SYMBOL (If applicable)
Admin/HSHA-IHC

7a. NAME OF MONITORING ORGANIZATION

6c. ADDRESS (City, State, and ZIP Code)
Ft. Sam Houston, TX 78234-6100

7b. ADDRESS (City, State, and ZIP Code)

8a. NAME OF FUNDING/SPONSORING ORGANIZATION

8b. OFFICE SYMBOL (If applicable)

9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER

8c. ADDRESS (City, State, and ZIP Code)

10. SOURCE OF FUNDING NUMBERS

PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO.	WORK UNIT ACCESSION NO.

11. TITLE (Include Security Classification)
NAVAL OUTPATIENT MEDICAL CARE AND SERVICES: A COMPARISON OF THE PERCEPTIONS OF SATISFACTION HELD BY SUB-GROUPINGS OF A BENEFICIARY POPULATION

12. PERSONAL AUTHOR(S)
LCDR John A. Rooney

13a. TYPE OF REPORT	13b. TIME COVERED	14. DATE OF REPORT (Year, Month, Day)	15. PAGE COUNT
Study	FROM Jul 85 TO Jul 86	Jul 85	105

16. SUPPLEMENTARY NOTATION

17. COSATI CODES		
FIELD	GROUP	SUB-GROUP

18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)
Health Care; Quality of Care Perceptions;

19. ABSTRACT (Continue on reverse if necessary and identify by block number)

This study was conducted to determine if there are any differences in the perceptions of Navy medicine held by beneficiaries who use medical treatment facilities (MTF) and those who use civilian sources for outpatient care. A survey was administered to beneficiaries who do and do not use Navy MTFs to measure their perceptions on service accessibility, location accessibility, humaneness, practitioner availability, physician continuity, and practitioner competence. Beneficiaries who use MTFs exclusively and beneficiaries who use a combination of MTFs and civilian facilities were closely related in their attitudes. Beneficiaries who do not use MTFs gave significantly more unfavorable responses on all indices except practitioner availability and continuity.

20. DISTRIBUTION/AVAILABILITY OF ABSTRACT
☒ UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT. ☐ DTIC USERS

21. ABSTRACT SECURITY CLASSIFICATION

22a. NAME OF RESPONSIBLE INDIVIDUAL	22b. TELEPHONE (Include Area Code)	22c. OFFICE SYMBOL
Lawrence M. Leahy, MAJ, MS	(512) 221-6345/2324	HSHA-IHC

DD Form 1473, JUN 86 Previous editions are obsolete. SECURITY CLASSIFICATION OF THIS PAGE

NAVAL OUTPATIENT MEDICAL CARE AND SERVICES: A COMPARISON OF THE PERCEPTIONS OF SATISFACTION HELD BY SUB-GROUPINGS OF A BENEFICIARY POPULATION

A Graduate Research Project

Submitted to the Faculty of Baylor University

In partial Fulfillment of the

Requirements for the Degree

of

Master of Health Administration

by

Lieutenant Commander John A. Rooney, MSC, USN

July, 1985

TABLE OF CONTENTS

ACKNOWLEDGEMENTS

Completion of this research project marks a day of celebration and relief for a number of important people in my life. It has been an exhaustive effort yet one that has invigorated the cognitive functions of all concerned.

Captain Douglas N. Benander, MSC, USN, provided valuable guidance and insights along the way.

Lieutenant Robert Clipper sacrificed many hours of his free time to develop and debug a microcomputer program to analyze the survey data. Without his volunteered assistance my pencils would be stubs.

Mrs. Marie Jones, with her secretarial expertise, turned all of the "chicken scratched" first drafts and "jig saw puzzle" revisions into a finely tuned, attractive looking document.

My wife, Kathleen, provided continual support and along with the children was instrumental in the mechanics of survey mailing.

To all of you I publicly express my deepest appreciation. Your acceptance of me as a student pursuing my Masters degree has truly been appreciated. Your kindness will never be forgotten.

LIST OF TABLES

LIST OF ILLUSTRATIONS

LIST OF EXHIBITS

I. INTRODUCTION

Background

Consumer satisfaction is a relatively new topic in the medical care arena. Index Medicus first dedicated a specific section heading for consumer satisfaction in 1968. At that time, there were thirteen articles relating to the topic. Much of the credit for that total goes to the Psychological Reports Journal and authors T. Z. Adelberg, et al. who published a series of five commentaries entitled "Notes on Satisfaction in Shopping Centers."[1]

Over the ensuing sixteen years, medical care consumers have been studied with increased frequency. Their perceptions of satisfaction with medical care have increasingly been recognized as an important dimension of quality medical care. Hines et al., identify medical care consumers and providers as being interested in increasing the "personalization" and "acceptability" of medical care. To that end, they tried to identify operational definitions and means of measuring them.[2]

In addition to the evaluation of medical care quality, consumer satisfaction studies are addressing issues related to health care marketing. Medical care competition has opened the field of health care marketing as

practitioners and health organizations have tried to lure consumers their way. Locke and Dunt, and Nelson-Wernick, et al. emphatically maintain that the medical care consumer will tell you what he wants in quality and quantity of medical care. We must seek the consumers opinions and listen.[3,4]

Those who depend on monetary reimbursement for services rendered are extremely aware of the need to offer satisfying services to their consumer public. So too are the U. S. Navy Medical Department authorities interested in patient satisfaction, but for other than monetary reasons. Programs that presently exist include: a Health Care Consumers' Council that provides a formal communication mechanism between health care managers and the consumers;[5] a Patient Contact Representative Program designed to demonstrate empathy and sensitivity to consumer concerns, as well as, defuse consumer grievances;[6] and a Fleet Liaison program specifically intended to provide operational forces with priority access to medical services.[7] Patient satisfaction surveys were first addressed as a specific feedback mechanism in a 1981 medical department instruction that established its Health Care Quality Assurance/Risk Management Program (HCQA/RMP). The method for identifying the patients' level of satisfaction is through satisfaction survey questionnaires and the purpose for the surveying is identified in the 21st chapter of that instruction, as follows:

> "...Too often, procedures become ritualized and work tasks become routinized, stifling initiative and weakening the capacity to respond to the personal needs of the patient. Patient satisfaction is being increasingly recognized as an important dimension of quality health care. The growing emphasis among our beneficiaries on health care being a major benefit and retention factor makes it essential that methods be developed and defined to assess patient satisfaction."

The HCQA/RMP, as described in BUMED Instruction 6310.62, requires that "overall assessment of patient satisfaction shall be conducted at least twice annually."[8] It is suggested that the outpatient questionnaire (Appendix A) be provided to each outpatient, sixty days preceding the reporting period. The requirements of this instruction are applicable to Naval Hospitals as well as branch clinics.

Development of the Problem

Questionnaire surveying has been identified as a method for obtaining feedback from patients regarding their satisfaction with health care and services received from Navy health care sources.[9] Comprehensive medical care services are an entitlement of active duty dependents on a space available basis.[10]

This care is available within the Military Health Services System (MHSS) which includes care provided at Military Treatment Facilities (MTFs) and/or care received from civilian practitioners and facilities under the Civilian Health and Medical Program of The Uniformed Services (CHAMPUS). For outpatient care needs beneficiaries may choose whichever program of care they desire. Depending upon the availability of military, as well as civilian, sources of outpatient health care in a given community, a beneficiary may not be able to receive required medical care from his first choice source. In this case, he may be required to seek care from an alternate source. For example, an MTF is unable to provide outpatient orthopaedic care for a chronic problem because of inadequate staffing. The beneficiary wants the MTF to provide the service but he must obtain it from civilian sources. He can utilize the CHAMPUS program. On the other hand, if a beneficiary prefers to use CHAMPUS for an outpatient medical requirement but finds it unavailable in the local community, he can seek that care from the MTF.

Beneficiaries who receive outpatient care from an MTF do not incur direct out-of-pocket expenses for the care provided. Those who receive outpatient care from a civilian source under the CHAMPUS program do incur direct out-of-pocket costs. There is a yearly deductible of $50.00 for one person or $100 for a family. In addition, for each medical bill, the active duty family must pay 20 percent of CHAMPUS allowable charges. If the medical provider does not accept CHAMPUS and/or bills the beneficiary for more than the allowable charge, he must pay the difference.[11]

Anderson, in a study of military beneficiary satisfaction with military and civilian sources of medical care, found 40.2 percent of his military beneficiary sample using civilian sources of medical care for 66 percent or more of their outpatient needs. The mean percentage of outpatient care visits credited to civilian physicians was 47.17 percent.[12] His study population was a stratified sample of all active duty, retirees, and their dependents within the contiguous United States.

Medical care costs have been steadily rising as demonstrated by the portion of the Gross National Product (GNP) that they consume. Consumers, government, employers, and third party health insurers have become interested to the point of preoccupation with medical care costs. If all of these groups are trying to reduce health care expenditures, it seems logical that a beneficiary of military health care would want to minimize his personal costs of medical care.

Given then, the need for outpatient medical care, the choice of using an MTF where no out-of-pocket costs are involved and using a civilian source where out-of-pocket monetary expenses are routine, why do military beneficiaries choose the civilian source alternative? Why does Andersen find such a large percentage of beneficiaries incurring the out-of-pocket expenses of civilian health care for their outpatient needs? Have they found the services they

require to be unavailable at the MTFs that service them? Have they had problems with accessing the MTF? Further still, have they had adequate access to MTF medical care but found it to be dissatisfying?

Comprehensive solicitation of beneficiaries' perceptions of MTF health care programs should be a high priority of Navy Medicine. The present method of soliciting consumer satisfactior finds those who use the MTF to be the predominant participants in the evaluation process. Consequently, beneficiaries who use civilian care more frequently than military care have less of an opportunity for contributing to the MTF patient satisfaction evaluation process.

When the military medical authorities evaluate the care and service they provide to the beneficiary population, the perceptions of the entire eligible beneficiary population should be represented. Otherwise, their evaluations may be biased toward users of the system.

Some would argue that only those who do use the MTF should provide feedback regarding satisfaction with care and services. They see no bias in such an approach.[13] From another point of view, however, the military service is unique. Medical care for military sponsor dependents is an agreement of employment. Just as an HMO promises a full year of health coverage for a predetermined contractual price, so too the military promises health care coverage to the member and his dependents as a benefit of employment. Medical care coverage for the service member and his family is described as being "no problem" by Navy recruiters.[14] However, in some areas, basic access to MTF services is extremely difficult. Beneficiaries who find this access problem might, legitimately, question the promise of the recruiter for medical care coverage. The feedback that this beneficiary group provides is pertinent and invaluable to military medical administrators.

The morale of the active duty sponsor can be effected by the care that his/her dependents receive or fail to receive from the MTF. Medical department evaluation of patient satisfaction demonstrates a sensitivity to beneficiary perceptions and opinions. Addressing users of the MTF only overlooks those who, regardless of the reason, use civilian care for their outpatient needs. Are we demonstrating a sensitive and caring attitude to these civilian care users under our present HCQA/RM evaluation program? Are we possibly ignoring beneficiaries who have strong negative perceptions? Does the very nature of being a military beneficiary who uses civilian sources of outpatient medical care reflect extraordinary dissatisfaction?

U. S. Navy medical commanders are concerned for the needs of the beneficiary population. They can best demonstrate a caring attitude through ensuring that the total beneficiary population is afforded a means of providing feedback regarding the care and services they perceive to be available and/or provided at the MTF.

This research study is designed to obtain the perceptions of satisfaction with MTF medical care and services of a sample of active duty dependents that represent users of military, as well as, civilian sources of health care. The study is focused on U. S. Navy MTF sources in the Tidewater, Virginia area. Emphasis is placed on a comparison of the differences between users and non-users of MTFs to suggest whether the current method of patient satisfaction surveying in U. S. Navy health care facilities adequately represents the opinions of the entire beneficiary population.

Statement of the Research Question

The U. S. Navy Medical Department is presently using patient satisfaction surveys to evaluate outpatients' perceptions of the care they receive in Military Treatment Facilities. This is part of a feedback mechanism of the Quality Assurance/Risk Management Program developed to evaluate the quality of medical care and services provided to the health care beneficiary. Current mechanisms for gathering data restrict the solicitation of information to those beneficiaries who use MTFs.

Eligible Navy beneficiaries, who use civilian sources of outpatient medical care, may not be receiving adequate opportunities to provide feedback to military health officials regarding their perceptions of medical care available at MTFs. Are there differences in the perceptions of Navy medicine held by beneficiaries who use MTFs and those who use civilian sources for outpatient care? Should we be attempting to obtain feedback from this group of beneficiaries when evaluating our medical care services?

The results of this study will have implications for the use of outpatient satisfaction surveys in MTFs as presently prescribed by the Naval Medical Command of the U. S. Navy.

Criteria

1. Descriptive statistics in the form of tables and graphic displays are used to illustrate the relationship between perceptions of satisfaction of various groups of active duty Navy dependent beneficiaries.
2. Inferential statistical analysis is used to quantify the significance of variation among various user groups in the beneficiary population. Confidence intervals are calculated for those groups that are compared. Significance of factors is based on an alpha level of .05.

Limitations

This study of beneficiary perceptions of outpatient medical care and services available from U. S. Navy health care facilities is restricted to the geographical location known as the Tidewater area of southeastern Virginia (see map, Exhibit 1), the largest Naval complex in the world.[15] The following limitations were identified to narrow the focus of the research:

1. The population universe consists of dependents of active duty, U. S. Navy personnel living within the forty-mile catchment area of Naval Hospital, Portsmouth, Virginia.

2. Sample families were randomly selected by the Defense Enrollment and Eligibility Reporting System (DEERS). The point of contact for each family was the active duty sponsor. Sponsors assigned to ships were eliminated from random selection to minimize mail forwarding delays.

3. MTFs where outpatient medical care and services are available refers to Navy shore facilities in the Tidewater area.

4. The health status of individual family members is not addressed.

5. The age breakout of individual family members is not addressed.

6. The responses requested by the survey instrument represent whole family perceptions without specific differentiation of individual family members.

7. Outpatient dental care services are not included.

Assumptions

The following assumptions are necessary for this study:

1. The predominant presence of U. S. Navy personnel, commands and MTFs over other service organizations in the Tidewater area suggests that all medical care needs of Navy dependents that are provided by MTFs are through Navy MTFs.

2. The perceptions of satisfaction with MTF care and services maintained by beneficiaries of military medical care are based on their direct experiences with MTFs or the influence of others who have had direct care experiences with MTFs.

3. That beneficiary responses to the Likert scale format of questions are frank and true and not based upon predetermined socially acceptable answers.

4. That "recall decay", the loss of memory for specific circumstances over time, is constant among the survey respondents, regardless of the time that has elapsed since MTF experiences.

Literature Review

Patient Satisfaction Definition

A review of health care and social service literature demonstrates the complexity and difficulty of specifically defining patient/consumer satisfaction. Fletcher, et al., define patient satisfaction as "the extent to which patients' expectations are met."[16] This basic and simple definition is then separated into specific areas of medical care and services for which patients are believed to have expectations. Locker and Dunt, when commenting on patient satisfaction

found support from the writings of Kelman who points out that patient satisfaction studies are not necessarily objective consumer evaluations of quality of care but they do identify elements of services which patients complain about, are satisfied or dissatisfied with or otherwise effect their utilization or response to health care.[17]

Fletcher's study of patients of a general medical clinic in a hospital setting used eight attributes believed to be important components of good medical care. These components were selected as a result of their extensive review of primary care literature. The criteria for selection was their frequent appearance in health care studies and writings. The eight attributes are: continuity, coordination, comprehensiveness, availability, convenience, cost, expertise, and compassion.[18] Other authors have similarly identified the components and attitudional dimensions underlying patient satisfaction. Ware has teamed with different authors over time and come up with various groupings of components. In 1975, he identified four categories; patient attitudes about physician conduct toward them, availability of services, continuity/convenience of care, and accessibility as essential dimensions of good primary care.[19] Three years later he expanded these to eight dimensions that effected patient satisfaction. These were; art of care, technical quality of care, accessibility/convenience, finances, physical environment, availability, continuity, and efficacy/outcomes of care.[20]

Basis for Concern with Patient Satisfaction

Recent medical literature is filled with references to the desirability of evaluating patient/consumer perceptions of satisfaction with the medical care available to them. Locker and Dunt credit development of the medical profession's interest in consumer opinion on increases in sociological concerns for interpersonal relations which gave rise to studies of practitioner-patient relationships. Results of various studies demonstrate the importance of understanding the patients' point of view.[21] They also credit changes that were occurring in medicine, specifically, a shift from acute to chronic illnesses, changes in the population age structure, and the increasing role of government as a motivating factor for assessing patient opinions.[22] Government concern is directed at the formulation of social and health policy. Research, including those addressing patient perceptions, that address problems and changes in medicine is used to evaluate the best and least expensive means of providing care. Therefore, research involves the measurement of outcomes of various types of care through cost/benefit analysis as well as consumer opinions of services.

Nelson-Wernick, et al., identify the "age of consumerism" as a motivating factor for health professionals to anticipate the demands of the patient population. They believe that beneficiary opinions of care and quality of care must be considered important.[23]

Grant studied the satisfaction of military beneficiaries with outpatient military health care services compared with outpatient civilian health care services. His premise was that the federal government, in its quest for national health insurance, needs to evaluate comparable systems for their economic and efficiency advantages. Just as important is the satisfaction that consumers obtain from health services.[24]

Hines, et al., wanted to evaluate the performance of family practice residents and clinic operations through a patient satisfaction survey. They described patient satisfaction as an important dimension of quality medical care that addresses the personalization and acceptability of medical care.[25]

Nelson-Wernick, et al., concerned that medical care evaluation was being done only by professionals who represent the providers, suggest that the consumer has a wealth of valuable information about the functioning of the health care system. Providers opinions, due to their proximity to the situation, can be too subjective. Therefore, the consumers' perceptions should be taken into account in assessments of quality of medical care.[26]

Zapka, studying Health Maintenance Organization (HMO) member satisfaction, suggests that HMOs and their predominantly ambulatory settings require consumer opinion feedback. She believes that HMO providers have less control over the patients' adherence to recommendations and that much of the primary care provided consists of caring and counseling. These two elements of HMO practice are not easily evaluated by usual methods and therefore require interpersonal exchanges with the consumer.[27]

Locker and Dunt question the value of high quality care as defined by clinical, economical or other provider defined criteria if patients are unhappy and dissatisfied.[28]

Hulka, et al., credit the development of patient satisfaction as a topic of importance to increases in the use of medical services and the development of new health care delivery systems. The issue of patient satisfaction is of importance to the lay public and consequently to the scientific investigator.[29]

Medical providers have mixed opinions on the validity of consumer perceptions. Zapka states that some providers argue that the average person is

delivery of health care services. Secondly, patient satisfaction is argued to be a dependent variable that contains useful information about the structure, process and outcomes of care. And third, that noteworthy behavioral consequences of dissatisfaction with consumer satisfaction is an independent variable with satisfied and dissatisfied consumers acting differently.[35]

How Has Patient Satisfaction Been Studied

Prior to this "age of consumerism," consumer perceptions were infrequently evaluated. Evaluations of medical care to improve upon techniques and end results of care are as old as medicine itself but objective studies of the care situation and process are a recent development. Most of these studies have occurred since 1968.[36] Some of the reasons given for the paucity of earlier patient satisfaction studies are: (1) researcher's fear that patient opinions are filled with inaccuracies; (2) low status of patient opinions among physicians; and (3) the newness of quality of care research.[37]

Present circumstances find patient satisfaction perceptions, along with the opinions of the health care institution's administration, medical staff, patients' families and third-party payers, to be of importance when looking at quality of care. The diversity of health institutions and their respective forms of care have made the establishment of a general assessment model very difficult.[38]

The methods for obtaining patient/consumer perceptions have been through interviews or written survey instruments. In 1978, Ware, et al., investigated the literature for patient satisfaction studies. They found interviews to be the most frequently described vehicle for data collection. Specifically, 41 percent were administered by interviews, 19 percent through self administered questionnaires, and less than two percent through a combination of both

not qualified to make judgements on quality of care. Others emphasize that seeking health care is an individual prerogative and that people are capable of evaluating the quality of care they receive.[30]

Locker, Dunt and Hulka, et al., are in agreement that the study of consumer perceptions has potentially positive effects. It can be used as an evaluation of quality of care, a predictor of consumer utilization of health care services, and an indicator of changes needed to improve medical services and patient responses.[31,32]

From a critical perspective, Hines, et al., find disappointment with pre-1977 studies of patient satisfaction. They found follow-up efforts of study results to be shallow or totally unresponsive to the needs of the consumers thereby not being used to improve patient care.[33]

In 1974, Lebow, as part of a project supported by the Department of Health, Education and Welfare, outlined seven reasons for increased emphasis on consumer satisfaction by health providers and other scientists. These seven items include: (1) an increased concern with patient care among members of the medical profession; (2) the introduction of social scientists with sophisticated sampling techniques into medical care settings; (3) an increase in questioning by the general population regarding the infallibility or homogeneity of medical care; (4) an increase in the availability of government money for the study of all aspects of health; (5) a greater general concern with objective measurement of all phenomena; (6) the development of large organizations interested in carefully monitoring the health care of their clients (e.g., insurance plans); and (7) an increased prominence of health as a factor in the quality of life.[34]

Ware and Davies have identified three reasons generally given for measuring consumer satisfaction with health care services. The first reason is based on the works of Donabedian which uses satisfaction as an ultimate outcome of the

techniques. The methods used for the rest of the studies could not be determined.[39]

Analysis of additional studies found patient interviews being done through home visitations,[40,41,42] in-clinic/hospital interactions,[43,44,45] and telephonic contacts.[46,47] Questionnaires were either mailouts [48,49,50,51] or in-clinic [52,53] contacts. Lebow identified an additional technique for evaluating patient perceptions of satisfaction. He reports that Birch and Wolfe, in an unpublished study, used projective devices along with a questionnaire to measure patient attitudes.[54]

Ware, et al., performed a comprehensive review of the measure and meaning of patient satisfaction in 1978. They found that, of 81 empirical studies, approximately two-thirds used single-item measures to test hypotheses. Thirty of the studies were conducted using one or more scales. Because of increased score variability and higher reliability scales (multi-item measures), Ware and his associates advocate scale use over single-item measures. They reported that a variety of satisfaction scales have been constructed, including the Method of Equal-Appearing Intervals, the Method of Summated Ratings, Scalogram Analysis and Factor Scaling.[55]

Zastowny, et al., have found a wide variety of dimensions of satisfaction, the most prominent being Hulka's and Ware's. Hulka, et al., identified three domains of satisfaction: personal qualities of physicians; professional qualities and competence of physicians; and cost and convenience of services. Ware, et al., postulate 18 dimensions of patient satisfaction with four main groupings: access to care; continuity of care; availability of services; and physician conduct.[56]

The wide variety of measurement and dimensionality of patient satisfaction in the literature is of critical concern to Zastowny. Nonetheless, without these areas being clarified, the research has continued.[57]

Patient satisfaction research is divided into five specific approaches: (1) satisfaction with quality of care, delivery of services and services rendered; (2) satisfaction with patient-provider interaction in the utilization contact; (3) satisfaction with special populations; (4) satisfaction with selection of providers, especially HMOs; and (5) satisfaction with the impact of structural factors. All of these approaches are concerned with the impact of patient sociodemographics on satisfaction.[58]

Who Has Studied Patient Satisfaction

With any scientific or social study topic it is helpful to know the motivation of the significant players. Researching the topic of consumer/patient satisfaction with medical care has primarily been conducted by professionals who are closely associated with health care. Psychologists, physicians, social workers, epidemiologists, administrators, and other health services personnel have played a part in the accumulation of the body of knowledge. Studies have been directed at specific patient populations including: Health Maintenance Organizations, Preferred Provider Organizations, Prepaid Group Practices (PGPs), hospitals, medical clinics, military health facilities, family practice services, etcetera.

Out of Plan Use

Military beneficiary use of any civilian health care practitioner services is most comparable to PGP and HMO members who choose out-of-plan providers to meet some or all of their medical needs. HMO and PGP out-of-plan use refers to the utilization of non-plan providers for covered or noncovered medical care services. Covered services are those available from or paid for by the plan's

providers. Noncovered services are those that are not provided by the terms of the provider-patient contract.[59]

The MHSS includes the MTF and CHAMPUS supported services. Strictly speaking, a beneficiary who uses either source is using the system. Practically speaking, the consumer and corporate trend throughout the United States, namely, minimizing the financial burden of medical care, should be considered when looking at the MHSS. MTF care involves no out-of-pocket direct expenses. CHAMPUS covered care requires a yearly deductible and cost sharing which are out-of-pocket direct expenses. The assumption that a beneficiary who needs medical care will first seek care at the MTF vice CHAMPUS to minimize out-of-pocket medical expenses seems credible. Credible, that is, if he is satisfied with the system and the desired service is available.

Some similarities of the HMO/PGP program and the MTF program are: both are contractual, HMOs/PPOs by virtue of an annually purchased contract and MTFs as a condition of the sponsor's active duty service;[60] both offer medical care services that are specified up-front; members of either group who choose alternate sources of outpatient health care are required to expend out-of-pocket monies greater than what would have been necessary within their respective programs; and group members, except active duty sponsors, are not required to seek medical care from the contracting program. Within this framework, out-of-plan use of medical care services by HMO/PGP members who use non-plan providers and military beneficiaries who use non-military providers is considered comparable.

Satisfaction Studies

Is the satisfaction level of a medical program consumer going to effect their continued use of that particular program? Studies of PGPs, HMOs and military medical programs indicate that the satisfaction level of a patient has

a significant effect on their use of plan services. Andersen, in a study of data collected in the 1978 Military Health Services Utilization Survey, concluded that satisfaction plays an important role in determining the extent to which a source of care is used.[61]

Hennelly and Boxerman found through step-wise regression analysis of demographic characteristics, family descriptors, self-perceived health status, number of days lost to usual activities for all family members, and the respondents' self reported satisfaction index value, that the satisfaction index was the greatest predictor of a family's out-of-plan use in a PGP.[62] Their objective was to see if out-of-plan use, a consequence of dissatisfaction, proceeds disenrollment from a plan or if dissatisfaction produced two independent effects, namely out-of-plan use or disenrollment.[63]

Scitovsky, et al., studied out-of-plan use under two prepaid plans. Both groups were found to rate the level of satisfaction with the plan as one of the most important factors associated with being an out-of-plan user.[64]

Sorensen and Wersinger studied factors influencing disenrollment from an HMO. They were of the opinion that previous studies of HMOs were directed at enrollees exclusively and that disenrollees should be studied for the important insights they could offer to HMO administrators. Their survey instrument revealed substantial differences between the satisfaction levels of groups of disenrollees and members.[65]

Mechanic, et al., compared HMO enrollees and disenrollees in an effort to learn more about recruitment, performance and disenrollment within a government encouraged health care system. They found 58 percent of disenrollees consulting outside physicians compared with 34 percent of continuing members. Dissatisfaction with perceived access to care was a major differentiating factor with disenrollees finding considerably more difficulty obtaining appointments and services.[66] The authors continued their study emphasizing the particular

aspects of care with which disenrollees were most dissatisfied as compared to those of continuing members.[67]

Patient satisfaction surveys at Naval Hospital Portsmouth (NHP) have solicited feedback from beneficiaries who have appeared at the MTF for treatment and/or evaluation during specific periods of the year. The survey instrument is distributed according to the preference of the MTF. At NHP, the usual distribution method is by hand delivery of the survey instrument from a staff member to the patient subsequent to the patient-provider contact. All categories of beneficiaries are included in this feedback mechanism. The questions addressed include: access, courteousness, administrative efficiency, staff professionalism, communications, staff qualifications, physical plant appearance and parking adequacy.[68] Demographic questions address the length of time since the initial visit to the clinic, frequency of visits to the clinic, status, sex, date of birth, and whether or not the respondent had a scheduled appointment in that clinic on the day of survey receipt.

Present Study

The above studies of HMOs and PGPs have served to legitimize the importance of surveying the perception of health care consumers. Perceived dissatisfaction with a plan has been demonstrated to lead to out-of-plan practitioner use.[69,70,71] Comparisons of HMO and PGP continuing members and disenrollees suggests that significant differences in perceived levels of satisfaction exist between the two groups.[72,73]

Military studies of beneficiary satisfaction with medical care have addressed the issue on a more global level using data received from active duty members of all branches of service, their dependents, retirees, retiree dependents, and survivors. Satisfaction questions addressed general perceptions

or experiences, quality and competence, humaneness, accessibility, resource availability, and continuity of care. In two studies, respondents reported their perceptions of care and services available from MTFs and Civilian Treatment Facilities (CTFs) under the CHAMPUS program.[74,75] In an on-going evaluation of patients' perceptions of medical care and services at Naval Hospital, Portsmouth, survey questions addressed the individual clinic visit and the care and services associated with that visit to the MTF. Reasons for using outpatient civilian care, be it under the CHAMPUS program or otherwise, were not the focus of these studies.[76]

In this study, respondents identify their relative use of military and civilian medical care sources. Civilian care use is then differentiated into categories of dissatisfaction with and nonavailability of services from MTFs. Based upon the beneficiaries' identification of the source(s) of outpatient care they have utilized during 1984, their perceptions of satisfaction with 15 elements of medical care received from a major teaching hospital and area branch clinics are compared. Emphasis is placed on the difference in perceived satisfaction with MTF medical care and services between various MTF user groups.

Methodology

The Study Plan

The survey instrument is designed to obtain preceptions of satisfaction maintained by Navy medical care beneficiaries along with demographic identification to permit comparisons of subgroups within the population sample. It is primarily based on a questionnaire used by Sorensen and Wersinger in their

1978 study of the members and disenrollees of Genesee Valley Group Health Association.[77] Additional questions were added to ensure coverage of each of the attributes of medical care, excluding cost, described by Fletcher, et al.[78]

The purpose of the Sorensen and Wersinger study, as well as that of the present study, is to compare perceptions of satisfaction among various members of a particular health care benefit group. Demographic data is collected to identify the characteristics of the sample population for generalizations to the population universe.

Questionnaire Demographics

The questionnaire survey instrument consists of fifteen demographics questions. The first three identify sponsor and family size characteristics. Number four is used to end the survey for sponsors who do not have dependent beneficiaries living within their household. Numbers five and six relate to the distance the beneficiary lives from local MTFs. Numbers seven and eight ask for non-CHAMPUS medical insurance coverage available to the beneficiaries. Numbers nine and ten address the expenses incurred by the dependent family members for civilian outpatient medical care and total family income for calendar year 1984. Numbers eleven through fourteen identify the source(s) of outpatient health care and a breakout of where those services were received. Civilian visits are further separated into the general reasons that they were accessed in lieu of services from an MTF. Number fifteen identifies how civilian health care expenses are paid for by the beneficiary.

Questionnaire: Patient Satisfaction

Beneficiaries' actual experiences with medical care at MTFs or their perceptions of the medical care they would expect to receive at MTFs are

addressed in fifteen questions of patient satisfaction. A five-point Likert scale is used to differentiate various levels of patient satisfaction. Continuity - the ability to see the same practitioner on every visit is addressed in question #28. Comprehensiveness - the ability to get complete health care in one place is addressed in question #29. Availability - the ability to get in touch with the doctor when needed is addressed in question #25. Compassion - the health professional's ability to talk at the level of consumer understanding and to the necessary length for consumer comprehension is addressed in questions #22, #23, and #24. Expertise - the doctor's ability to expertly handle the consumer's medical problems is addressed in questions #21 and #30. Coordination - the doctor's acceptance of responsibility for all of the consumer's health care is addressed in question #28. Convenience - the ease of access to the medical care facility and system is addressed in questions #16, #17, #18, #19, #26, and #27.

The validity of the patient satisfaction categories (identified in the previous paragraph) as patient priorities for medical care is based on the findings of Fletcher, et al. Their use of these attributes was based solely on the frequency of their appearance as components of good medical care in an extensive review of primary medical care literature.[79] In order to assure the appropriateness of these attributes, in this study of a military beneficiary population, a three part screening procedure was initiated. First, the originally developed questionnaire was independently reviewed by three Navy health care administrators. Following recommended revisions it was presented to ten Navy health care professionals of various levels within the heirarchy of the local Navy medical facility. Included were two physicians, two nurses, two health care administrators, two allied health scientists and two hospital corpsmen. Their selection as professional critics was based upon their assignment in the MTF, experience in health care administrative activities and

exposure to beneficiary contacts of an administrative and clinical nature. Following this critique, the survey instrument was revised and then distributed to 20 military beneficiaries for their critical review. Selection of these reviewers was based upon their interest in and an understanding of the purpose of the research project and their experience with care provided at the MTFs. They were selected so that a variety of ranks and specialty fields were represented. Following their critique, the survey instrument was again revised. These distinct, critical reviews were meant to: (1) evaluate the appropriateness of the questions for a military dependent population, and (2) improve upon the readability and clarity of the instrument.

The survey instrument was pretested on a randomly selected group of 25 active duty Navy sponsors living within the ZIP code catchment area of Naval Hospital, Portsmouth as provided by the Department of Defense Manpower Data Center, Monterey, California. It was designed for self-administration and required approximately 15 minutes to complete. A copy of the survey instrument is included as Appendix B.

Sample Selection and Description

The population of interest for this survey includes dependents of Navy active duty personnel who live within the postal ZIP code catchment area of Naval Hospital, Portsmouth excluding those assigned to ships. In order to capture feedback from this particular population, records of the DEERS were requested from the Department of Defense Manpower Data Center. These records were organized by active duty sponsor duty station. Therefore, dependents were accessed through the active duty sponsor via his command mailing address. A listing of 400 mailing labels of active duty, U. S. Navy personnel who were identified as having dependents was used to access the population sample.

Description of Data Collection Procedures

The general procedure for administering the survey was a self-administered questionnaire mailout and a follow-up postcard reminder notice for non-respondents. The specific steps were as follows:

1. Each of the family units selected was sent a cover letter via their sponsor's official command mailing address. This letter announced the purpose of the questionnaire. As enclosures to the letter were a five-page patient satisfaction questionnaire and a self-addressed, stamped envelope.

2. After fifteen days, non-respondents were mailed a standard message post card, Appendix C, that reemphasized the importance of participating in the survey process and asked for their assistance.

Sample Representativeness

Sample selection was extracted from a list of 1000 randomly selected mailing labels of active duty Navy personnel assigned to shore duty within the catchment area of the Naval Hospital, Portsmouth, Virginia. This list was generated by the Department of Defense Manpower Data Center in Monterey, California during late January 1985. Four hundred of the 1000 names were selected to participate in the study. Because of the format of the address labels, a priori knowledge of the ranks of the individual sponsors was not known.

Sample Selection

For this study, only beneficiaries who were dependents of active duty Navy members and living within the sponsor's household were used. The active duty

member was excluded because he generally does not have the option of securing civilian outpatient medical care. Other categories of military beneficiary (i.e., retirees, survivors, and their dependents) were excluded so that the project would be manageable for the time allotted. Active duty dependents were selected as the focus of the study because they have a higher priority than other beneficiary groups in the receipt of military medical care. Additionally, the degree to which the MTF is able to satisfy the medical needs of this population may effect personal career decisions and morale of the active duty sponsor. Therefore, a critique of our medical system by this population was felt to be of considerable value.

Sample size was based on the formula for determining sample size for estimating means as prescribed by Wayne W. Daniel in his 2nd edition of "Biostatistics: A Foundation for Analysis in the Health Sciences." Sampling was without replacement and determined by the following formula:

$$n = \frac{Nz^2\sigma^2}{d^2(N-1)+z^2\sigma^2}$$

In this formula, N is the total number of active duty Navy families within the Portsmouth Naval Hospital's catchment area (i.e., approximately 60,000). The reliability coefficient is equal to 95 percent which translates to a Z-score of 1.96. An interval of .05 on either side of the estimator was subjectively determined to be an acceptable amount of variabiity. This figure is accounted for by the d-variable. Population variance, σ^2, has been established as 2. Unfortunately this figure cound not be determined by the results of the pilot study due to the poor response of that sample group. The computation of this formula indicates that a minimum of 62 respondents are necessary to meet the requirements of acceptable statistical analysis.

Statistical Analysis

The purpose of statistical analysis is to determine whether there is a difference between the perceptions of satisfaction with MTF medical care and services among selected Navy beneficiary users groups. Initially, comparisons are made between beneficiaries who use MTFs exclusively and those who use CTFs exclusively. Next, those who use both MTFs and CTFs are subdivided into three groups. One group consists of those who identify nonavailability of needed services at the MTF as the exclusive reason for using civilian care. The second group is those who identify dissatisfaction with MTF health care services as the exclusive reason for using civilian care. The third group consists of all other beneficiaries within this group of military and civilian care users. For simplicity, these groups of military beneficiaries will be identified by a code letter throughout this report as follows:

Code	Definition
A	Use military medical care exclusively.
B	Use both military and civilian medical care. Use of civilian care is attributed to a combination of MTF service nonavailability and/or dissatisfaction with neither being exclusive.
C	Use both military and civilian medical care with all of the civilian care utilization the result of dissatisfaction with the care and/or services at MTFs.

Code	Definition
D	Use both military and civilian medical care with all of the civilian care utilization the result of nonavailability of these services from MTFs.
E	Use civilian medical care exclusively.

Comparisons of the above identified groups and their perceptions of satisfaction with MTF health care and services are through descriptive tables, graphs and inferential statistical techniques. Confidence intervals are calculated for the difference between the means of selected patient satisfaction questions for the five user groups. Results are then inferred to the target population.

FOOTNOTES

1. Cummulated Index Medicus, Martin M. Cummings (Washington, DC: US Government Printing Office, 1968), 9, p. 2084.

2. Robert H. Fletcher et al, "Patients' Priorities for Medical Care," Medical Care, 21, February 1983, p. 148.

3. Eleanor Nelson-Wernick et al, "Patient Perception of Medical Care," Health Care Management Review, (Winter 1981): p. 65.

4. J. Gary Grant, "Patient Satisfaction with a Totally Government Financed and Administered Health Care System: A Sample of Current Military Medicine," Military Medicine 147, August 1982, p. 667.

5. Naval Regional Medical Center, Health Care Consumers' Council, NAVREGMEDCENINST 6000.4B, 7 March 1979.

6. Naval Regional Medical Center, The Patient Contact Representative Program, NAVREGMEDCENINST 6320.39B, 13 December 1982.

7. Naval Regional Medical Center, Support of Medical and Dental Department Organizations of the Operating Forces, NAVHOSPPTSVAINST 6440.1.

8. Bureau of Medicine and Surgery, Department of the Navy, Health Care Quality Assurance/Risk Management Program; establishment of, BUMEDINST 6320.62.

9. Ibid.

10. A Reference Guide to the 1984 Military Health Services System Beneficiary Survey (Arlington, VA: Systems Research and Applications Corporation, [December 1984]), p. I-1.

11. CHAMPUS HANDBOOK (Aurora, CO: CHAMPUS, [January 1983]), CHAMPUS 6010.46-H, p.41.

12. Alden P. Anderson, Evaluating the Impact of Consumer Satisfaction on Utilization of Health Services in the Military Health Services System, An unpublished thesis from the MHA program at the University of Minnesota, June 1981, p. 62.

13. Interview with Captain Kenneth F. Wagner, MC, USN, Portsmouth, Virginia, 18 April 1985.

14. Telephone interview with BM2 Bush, USN, Norfolk, Virginia 9 May 1985.

15. Department of the Navy Tidewater Naval Regional Medical Study, Navy Contract No. N62470-83-B-6057, p. 14.

16. Fletcher et al, p. 234.

17. David Locker and David Dunt, "Theoretical and Methodological Issues in Sociological Studies of Consumer Satisfaction with Medical Care, " Social Science and Medicine, 12, 1978, p. 290.

18. Fletcher et al, p. 235.

19. Ibid.

20. Ibid.

21. Locker and Dunt, p. 283.

22. Ibid.

23. Nelson-Wernick et al, p. 71.

24. Grant, p. 667.

25. Brian L. Hines, Q. D. Clarkson, and D. D. Smith, "Development and Use of a Patient Satisfaction Questionnaire," Journal of Family Practice, 4, 1: p. 148.

26. Nelson-Wernick et al, p. 65.

27. Jane M. Zapka, "Assessment of Member Satisfaction in an HMO: Understanding the Interaction of Variables and their Implications," Journal of Ambulatory Care Management, 2, November 1979, p. 30.

28. Locker and Dunt, p. 283.

29. Barbara S. Hulka et al, "Coorelates of Satisfaction and Dissatisfaction with Medical Care: A Community Perspective," Medical Care 13, August 1975: p. 648.

30. Zapka, p. 30.

31. Locker and Dunt, p. 289.

32. Hulka et al, p. 649.

33. Hines et al, p. 148.

34. Jay L. Lebow, "Consumer Assessments of the Quality of Medical Care," Medical Care 12, April 1974: p. 328.

35. John E. Ware and Allyson R. Davies, "Behavioral Consequences of Consumer Dissatisfaction with Medical Care," Evaluation and Program Planning, 6, 1983: p. 291.

36. Lebow, p. 328.

37. Ibid., p. 330.

38. Ibid., p. 328.

39. John E. Ware, Allyson Davies-Avery, and Anita L. Stewart, "The Measurement and Meaning of Patient Satisfaction," Health and Medical Care Services Review, 1, January/February 1978: p. 3.

40. Hulka et al.

41. Anne A. Scitovsky, Lee Benham, and Nelda McCall, "Out-of-Plan Use Under Two Prepaid Plans," Medical Care 19, December 1981.

42. Richard Tessler and David Mechanic, "Consumer Satisfaction with Prepaid Group Practice: A Comparative Study," Journal of Health and Social Behavior 16, 1975.

43. Fletcher et al.

44. Nelson-Wernick et al.

45. A. David Mangelsdorff, "Patient Satisfaction Questionnaire," Medical Care, 17, January 1979.

46. Andrew A. Sorensen and Richard P. Wersinger, "Factors Influencing Disenrollment from an HMO," Medical Care, 19, July 1981.

47. Scitovsky, Benham, and McCall.

48. Zapka.

49. Hines, Clarkson, and Smith.

50. Virginia D. Hennelly and Stuart B. Boxerman, "Out of Plan Use and Disenrollment: Outgrowths of Dissatisfaction with a Prepaid Group Plan," Medical Care, 21, March 1983.

51. Klaus J. Roghmann, Acco Hengst, and Thomas R. Zastowny, "Satisfaction with Medical Care: Its Measurement and Relation to Utilization," Medical Care, May 1979.

52. Hines, Clarkson, and Smith.

53. Grant.

54. Lebow, P. 331.

55. Ware, Davis-Avery, and Stewart, p. 6.

56. Thomas R. Zastoway, Klaus J. Roghmann and Acco Hengst, "Satisfaction with Medical Care: Replication and Theoretical Reevaluation," Medical Care, 21, March 1983, p. 296.

57. Ibid.

58. Ibid.

59. Scitovsky, Benham, and McCall, p. 1167, 1170.

60. A Reference Guide to the 1984 Military Health Services System Beneficiary Survey, p. I-1.

61. Anderson, p. 85.

62. Hennelly and Boxerman, p. 353.

63. Ibid., p. 348.

64. Scitovsky, Benham, and McCall, p. 1174.

65. Sorenson and Wersinger, p. 768.

66. David Mechanic, Norma Weiss and Paul D. Cleary, "The Growth of HMOs: Issues of Enrollment and Disenrollment," Medical Care, 21, March 1983, p. 341.

67. Ibid., p. 342.

68. B. A. Leadford, "Report of Patient Satisfaction Survey" (Portsmouth, VA: 14 March 1985).

69. Hennelly and Boxerman, p. 353.

70. Ibid., p. 348.

71. Scitovsky, Benham and McCall, p. 1174.

72. Mechanic, Weiss, and Cleary, p. 341.

73. Sorensen and Weisinger, p. 768.

74. Anderson.

75. A Reference Guide to the 1984 Military Health Services System Beneficiary Survey.

76. Anderson, p. 58.

77. Sorensen and Wersinger, p. 766.

78. Fletcher et al, p. 236.

79. Ibid.

II. DISCUSSION

General Approach

The following discussion details the mechanics of questionnaire pretesting (pilot study) and final survey fielding (parent study). Included is an analysis of each step of survey administration with analysis and interpretation of survey responses.

Pilot Study

Following the development of the survey instrument a pilot study was administered. The primary purpose for the pilot study was to identify: (1) the expected response rate for final survey administration and (2) problems that could be expected with sample member participation (i.e., beneficiary comprehension and comprehensive completion of the survey instrument).

Twenty-five active duty Navy sponsors were randomly selected from the random sample of 1000 active duty Navy military personnel obtained from the Department of Defense Manpower Data Center to participate in the pilot study. To these twenty-five individuals was sent a questionnaire cover letter, Appendix D, a final critiqued "Military Health Care Beneficiary Questionnaire: Navy Outpatient Care Available to Active Duty Dependents" survey instrument and a stamped, self-addressed envelope. All were sent via the members' official military mailing address on 10 March 1985.

The questionnaire cover letter addressed the U. S. Navy Medical Department's interest in evaluating beneficiaries' perceptions of medical care provided at MTFs, the importance of beneficiary participation in the survey by selected personnel, definition of the terms "outlying clinics" and "hospital", the focus of the questionnaire on medical care, a comment on the confidentiality of respondent answers, and a thank you statement. This message was above the signature of the investigator along with his affiliation with the educational institution.

Of the twenty-five questionnaires mailed to the pilot sample population, only seven were returned for a response rate of 28 percent (7/25). Two of the seven returned surveys were not usable because they identified themselves as having no dependents living within their household and/or entitled to military health care for a useable questionnaire rate of 71.4 percent (5/7).

Lessons Learned from Pilot Study

The return rate of the pilot population sample was of particular concern to the investigator. Such a small return was not consistent with the participation in a more complex survey that had been done by the Department of Defense (DOD) in the recent past.[1] In that study, the adjusted response rated for active duty officers was 71.68 percent, for active duty enlisteds with less than five years of service was 36.62 percent and for active duty enlisteds with greater than five years was 56.7 percent. The particular causes for this limited participation were attributed to two variables; the length and contents of the cover letter, and the absence of a return address on the envelope sent to the sponsor.

Concern for a comprehensive yet concise, readable cover letter to stimulate beneficiary interest and participation in the research process was a primary goal from the outset of the project. It was felt that the success of this piece of correspondence was essential to a respectable percentage of participation by the population sample. To this end, cover letter drafts were again critiqued along with questionnaire drafts at each review level. Beneficiary critics were given the choice of two separate cover letters and asked to select the one they preferred. Based upon their majority selection and additional critical review by the investigator a revised cover letter was developed and used for the pilot study mailout, Appendix E. Although specific responsibility for the small beneficiary response to the pilot study could not be placed solely on deficiencies in the cover letter, the investigator chose to make significant changes to it prior to the main survey mail out. A copy of the final cover letter is provided at Appendix F.

The absence of a return address on the questionnaire mailout envelope was a potentially important factor in the small rate of response demonstrated by the pilot study. The large size of the target population combined with the frequent transfer and reassignment of active duty military personnel provides significant potential for undeliverable and forwarded mails to occur. Without the opportunity to have these categories of mail returned to the investigator, identifying the extent of this occurrence in the pilot or final study is reduced to conjecture. Based on the returns of the pilot study, accounting for this group of sample beneficiaries was determined to be essential and a return address with a forwarding message was attached to each sample sponsor's survey envelope.

On a positive note, pretesting disclosed no problems with any of the specific survey questions and no changes were made by the investigator.

Parent Study

The parent study was initiated on 31 March 1985 with the mailing of 400 survey questionnaires, Appendix G, and return envelopes to the selected population sample. None of the Navy sponsors used for the pilot study were used in the parent study. Stratification of the sample population was done retrospectively based upon the sponsor's response to questions in the demographics portion of the survey instrument.

For purposes of sample follow-up, a master list of all the sample sponsor names was maintained. On 15 April 1985, all sample sponsors who had not responded to the survey or otherwise been accounted for (i.e., surveys returned to sender; undeliverable) were sent a reminder post card to encourage their participation.

Survey returns were accepted for analysis through 15 May 1985 to allow for final compilation of the data for analysis.

Analysis of Results

Questionnaire Data Encoding

Questionnaire data was entered by the researcher into a Zenith® 120 computer via the Massachusetts Hospital Utility Multi-Programming System (MUMPS)-programming language. Each returned questionnaire was given an identification number so that the accuracy of initial data entry into the computer program could be checked. Each questionnaire had thirty input variables with blank responses designated as "Ø." Question 31 was available to respondents for written comments that would amplify and/or permit unstructured feedback to the researcher.

Survey Responses

As of 15 May, 1985, 185 questionnaires had been completed and returned. Although numerous questionnaires had missing responses, none were judged to merit disqualification from the study. Absent entries did not effect questions that were completed because each answer was mutually exclusive. After the cut-off date, six additional completed surveys were returned. Other categories of returned questionnaires include those returned indicating zero dependents (10 surveys), undeliverable/return to sender (41 surveys), and one respondent who no longer lived in the area (returned an unanswered questionnaire). The balance of 157 survey instruments were not returned. The DEERS random sample listing was to include sponsors with dependents only. Respondents who identified themselves as having zero dependents may reflect families where co-location of family members does not exist.

The adjusted response rate, returned questionnaires ÷ total surveys mailed - undelivered and unuseable surveys, was 54.25 percent. This was found to be consistent with the adjusted return rates identified by Anderson[2] and the DOD Health Care Survey of 1984.[3] In relation to the most recent Patient Satisfaction Survey - Outpatient, conducted at Naval Hospital Portsmouth, this study's response rate was 100 percent greater.

Survey Respondents' Demographic Profile

Demographic characteristics were obtained from each of the respondent family units to permit post-stratification of the sample population.

A histogram, displaying the representation of each rank grouping among all study respondents is presented in Figure 1. Unfortunately, there were no respondents with paygrade greater than O6. This is not surprising given the relatively small percentage of personnel in this category within the active duty Navy population in Tidewater. The small number of respondents in paygrades W1-W4 is consistent with their representation in the active duty population. Respondents in paygrades E1-E4 and O1-O3 appear to be represented to a lesser degree than their percentage of the active duty Navy population would suggest. This may be due to fewer marriages among personnel of these ranks with corresponding exclusion from the study's random selection process.

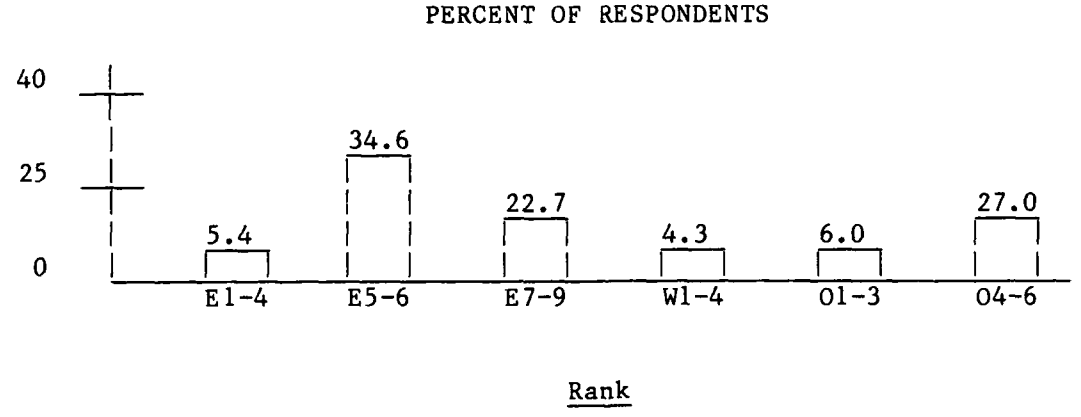


Figure 1. Bar Graph: Distribution of families responding to the survey; classified by rank of sponsor.

Sponsor's years of service is displayed in Figure 2. Except for those with less than five years of service, each longevity category is composed of at least 20 percent of the respondent population. The small percentage of sponsors representing the less than five years of service range is most likely due to the sample selection process. Since selectees must have dependents, it is likely that a large majority of personnel with less than five years of service do not have dependents and, therefore, were excluded from the random sampling process.

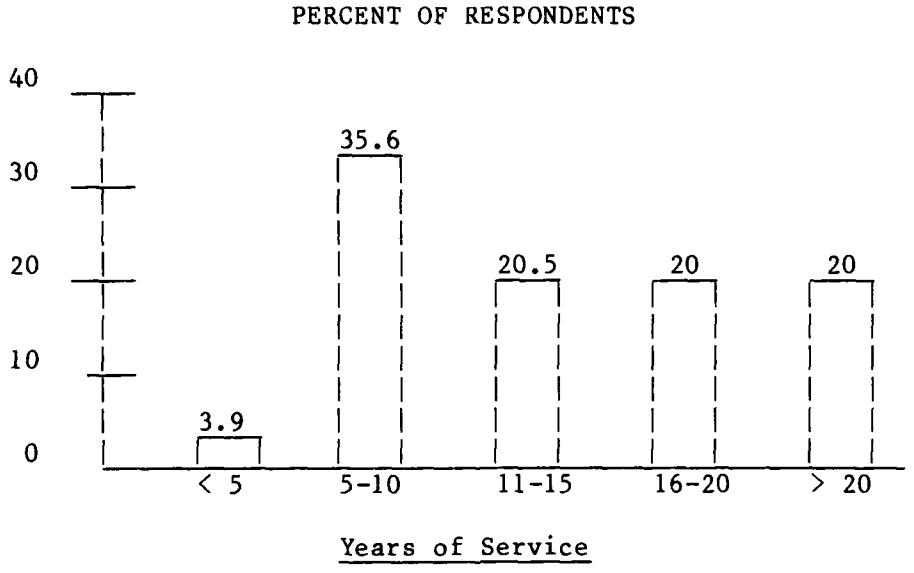


Figure 2. Bar Graph: Distribution of families responding to the survey; classified by sponsor's years of service.

The histogram in Figure 3 identifies the number of dependents living within the household of respondent sponsors. Sponsors without dependents co-located with them were excluded from the random sampling. No respondents indicated greater than six dependents.

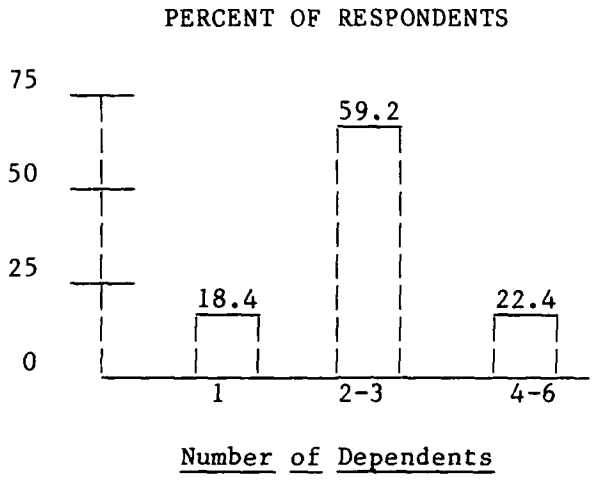


Figure 3. Bar Graph: Distribution of families responding to the survey; classified by the number of dependents living within their local household.

Income levels are displayed in Figure 4. Military pay scales are such that, in 1984, a member would have to be employed for less than a full year in order to earn less than $10,000.00. Assuming the accuracy of respondent answers, almost two percent of the sample was composed of sponsors with less than one year of service. No attempt was made to separately identify income from "moonlighting" or spouse employment.

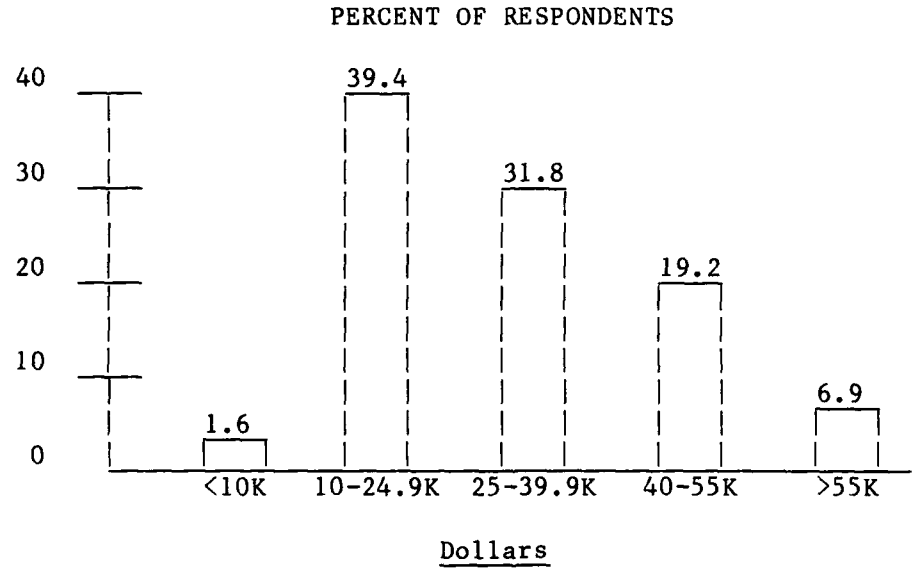


Figure 4. Bar Graph: Distribution of families responding to the survey; classified by family's gross income in 1984.

Figure 5 identifies, by rank groupings, where respondents receive their outpatient medical care. Each graph represents separate rank groupings. The horizontal axis of each graph consists of code letters that identify the various combinations of alternate sources of care used by the respondents. These codes were previously described on pages 26 and 27.

The graphs in figure 5, pages 43 - 45, reveal a number of interesting pieces of information regarding the sample population. As indicated by these graphs, less than 40 percent of all of the respondents use military facilities exclusively for their outpatient needs. Respondents in category D, who use CTFs only when needed services are not available from the MTF, are very closely related to the category A respondents. Had they not needed services that were unavailable at the MTF they would have been category A respondents. These two groups of respondents did not use CTFs because of dissatisfaction with MTFs. This, of course, is not to imply that they were satisfied with all their MTF care. Nonetheless, they did not seek an alternate source of care if they were dissatisfied.

On the other hand, groups B, C, and E are composed of respondents that have either expressed dissatisfaction with MTFs, groups B and C, or are likely to have been dissatisfied with some element of MTF care and services based on their exclusive use of CTFs, group E.

The cummulative percentage of respondents in groups B, C and E indicate the overall percentage of beneficiary family units that have deliberately chosen CTFs over MTFs for outpatient care. The percentages applicable to each group of ranks are as follows:

Enlisted Ranks	Cummulate % of Groups B, C, & E
1 - 4	40.0 %
5 - 6	52.4 %
7 - 9	33.4 %

Officer Ranks	Cummulate % of Groups B, C, & E
Warrant	85.7 %
1 - 3	81.8 %
4 - 6	55.1 %

As can be seen, a significant portion of the respondent population has utilized CTFs for other than nonavailability reasons. Enlisted personnel dependents

chose CTFs, under these conditions to a less extent than officer ranks. Although specific reasons for these differences are not the intent of this study, some of the possible explanations include:

a. enlisted personnel families may have greater satisfaction with military medical care/services than do officers

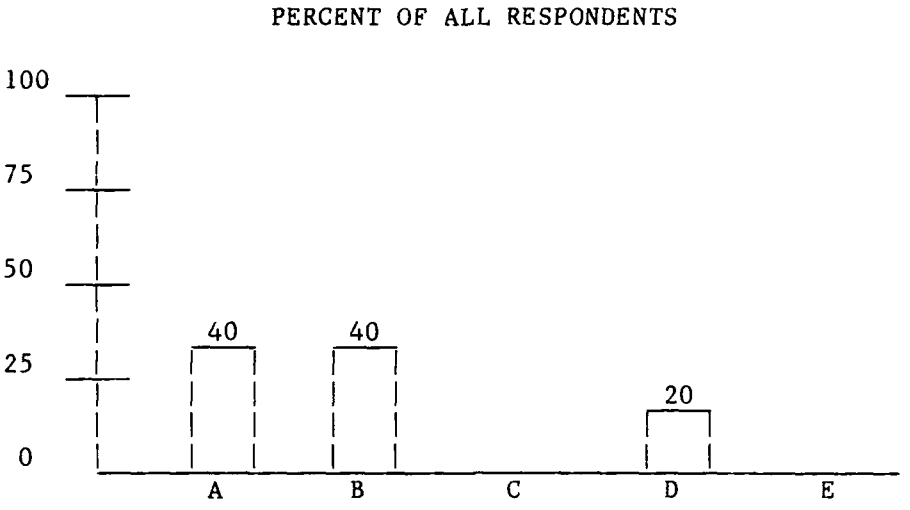
b. enlisted personnel families may have greater tolerance for peculiarities of military medical care/service than do officers

c. enlisted personnel families generally have lower gross incomes than officer families. Therefore, they may have more limited options when seeking outpatient medical care

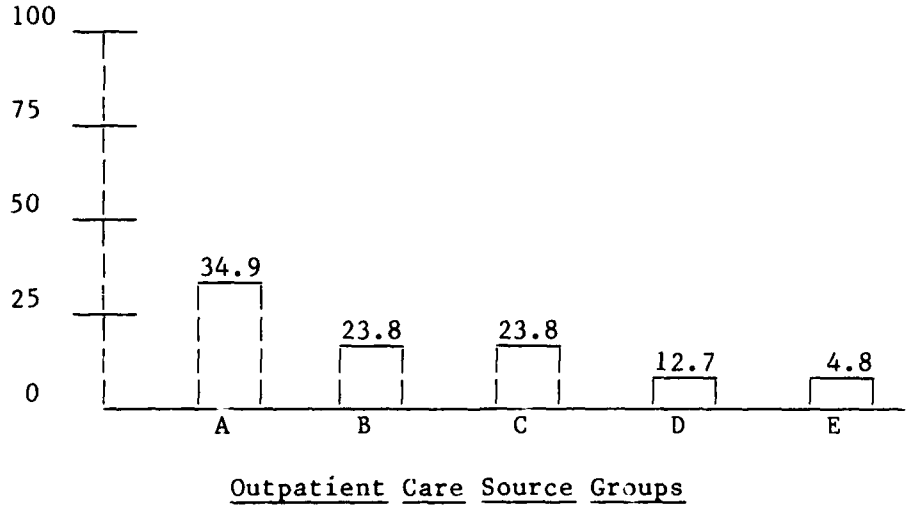
d. any combination of the above

Focusing on group E at each of the graphs we find Warrant Officers and Officers 1-3 utilizing civilian care exclusively, most frequently. Except for Enlisted 1-4, the other ranks have similar percentages of civilian exclusive use. Their use ranges from 4.8 percent to 6.1 percent. Possible explanations for the difference between the Warrants and junior rank Officers versus all other ranks are the direct opposite of the reasons for using MTFs as addressed above.

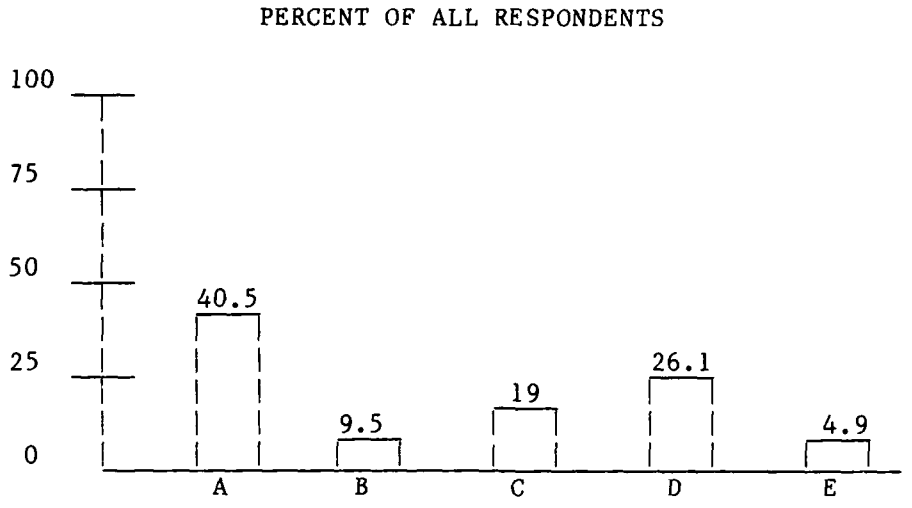
Graph I - Enlisted 1 - 4



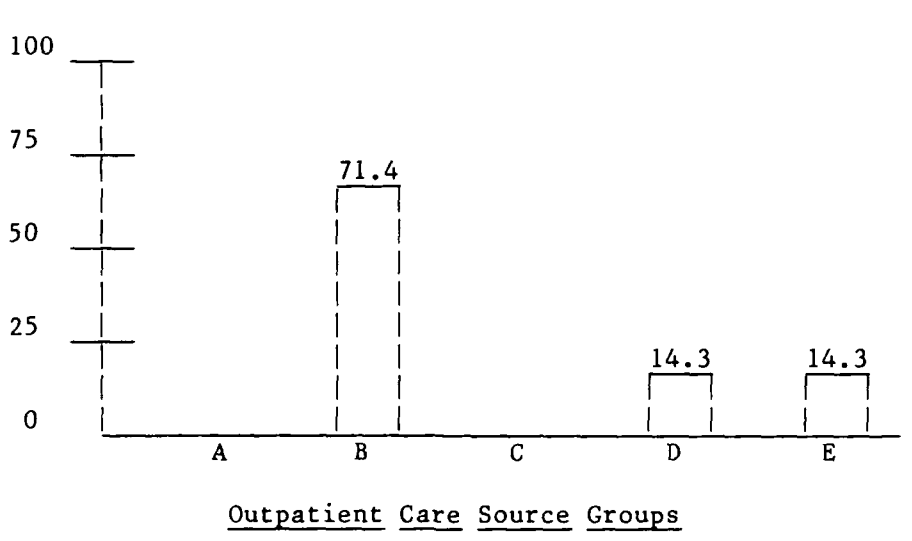
Graph II - Enlisted 5 - 6



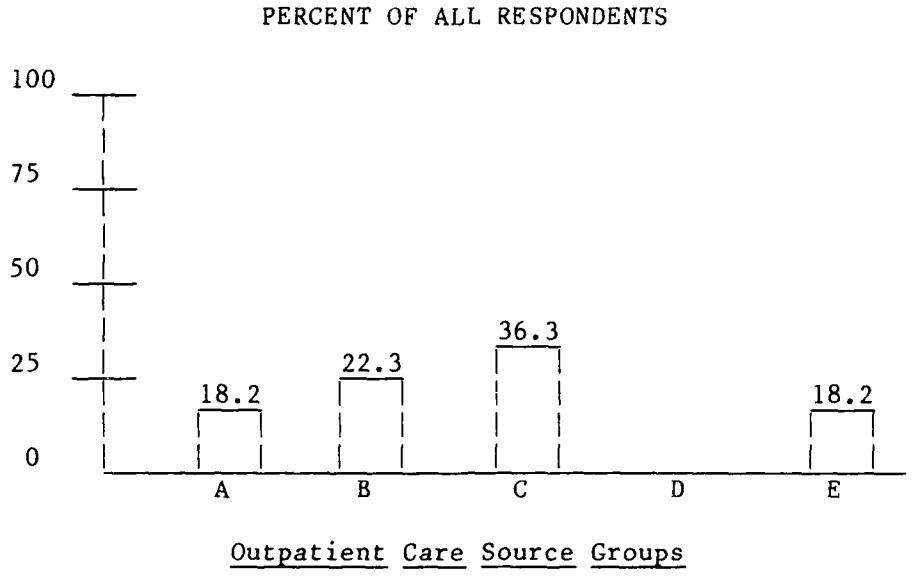
Graph III - Enlisted 7 - 9



Graph IV - Warrant Officers



Graph V - Officer 1 - 3



Graph VI - Officer 4 - 6

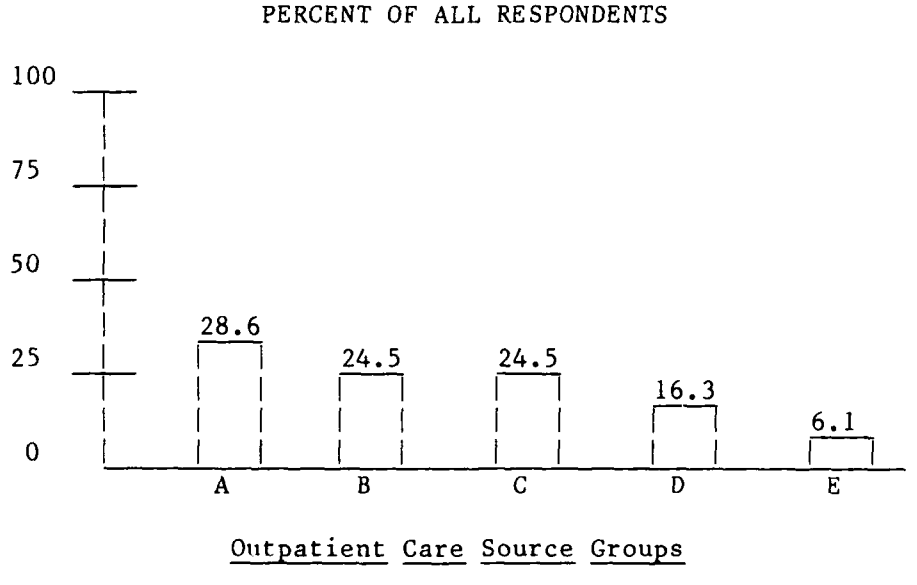


Figure 5. Bar Graphs: Respondent identified outpatient medical care pattern during 1984; classified by rank of sponsor and outpatient care source.

Amplifying upon the previous section, the numbers of outpatient visits by the sample population, as a group, are expressed in tabular form at Table 1. The population sample had a total of 2906 outpatient visits in 1984. Sixty percent of these visits were conducted at MTFs with the balance credited to CTFs. Of the 1147 visits that occurred in CTFs, 52.6 percent were the result of dissatisfaction with some aspect of the MTFs and 42.7 percent were due to the nonavailability of care or services from MTFs. Visits to CTFs because of dissatisfaction with MTFs accounted for 20.7 percent of all outpatient medical visits by the sample respondents.

Twenty-five percent of the total outpatient visits, were used by families who identified their utilization pattern as military exclusive, 6.8 percent were civilian exclusive and 68.2 percent were military and civilian combinations.

TREATMENT FACILITY UTILIZATION PATTERN	OUTPATIENT VISITS					# OF FAMILIES REPRESENTED	VISITS/ FAMILY
		CTF					
	MTF	DISSATISFIED	NON-AVAILABLE	UNDETERMINED*	TOTAL		
Military Exclusive	725 25%	—	—	—	725 25%	59 32.4%	12.29
Civilian Exclusive	5 .1%	195 6.7%	—	—	200 6.8%	11 6.1%	18.18
Military & Civilian	1029 35.4%	408 14%	490 16.9%	54 1.9%	1981 68.2%	112 61.5%	17.69
Total	1759 60.5%	603 20.7%	490 16.9%	54 1.9%	2906	182	—

Table 1. Outpatient medical care visits by sample respondents during 1984; classified by the respondents' identified treatment facility utilization patterns.

Figure 6 demonstrates the portion of CTF visits, attributed to dissatisfaction with MTFs, that each rank group contributed to the population sample total. Comparing these percentages with figure 1 results, page 37, demonstrates the relationship between each rank group's contribution to CTF visits, due to dissatisfaction, and their representation in the population sample. As an example, Enlisted ranks 1-4 made up 5.4 percent of the study respondents (from figure 1) while accounting for only 2.6 percent of the CTF visits attributed to dissatisfaction with MTFs. At the other extreme, Officer ranks 4-6 accounted for 27 percent of the study respondents (figure 1) but 30.3 percent of the CTF visits attributed to dissatisfaction with MTFs.

Figure 6 also identifies the percentage of families effected by CTF dissatisifed visits within each rank grouping. The Officer ranks have the largest percentages at 72.7 percent for O1-O3s, 62.5 percent for Warrants, and 46 percent for O4-O6s. Enlisted 1-4 have the least number of families with CTF dissatisfied visits as demonstrated by their 20 percent involvement.

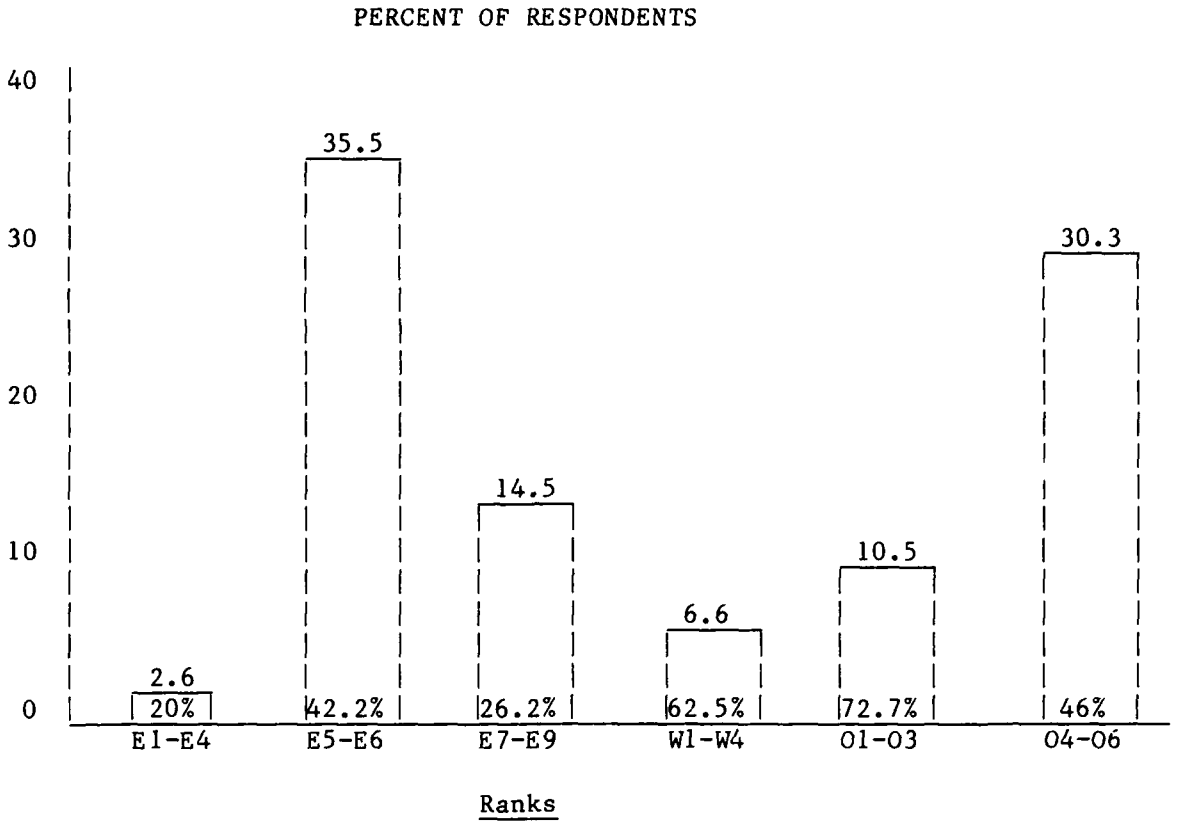
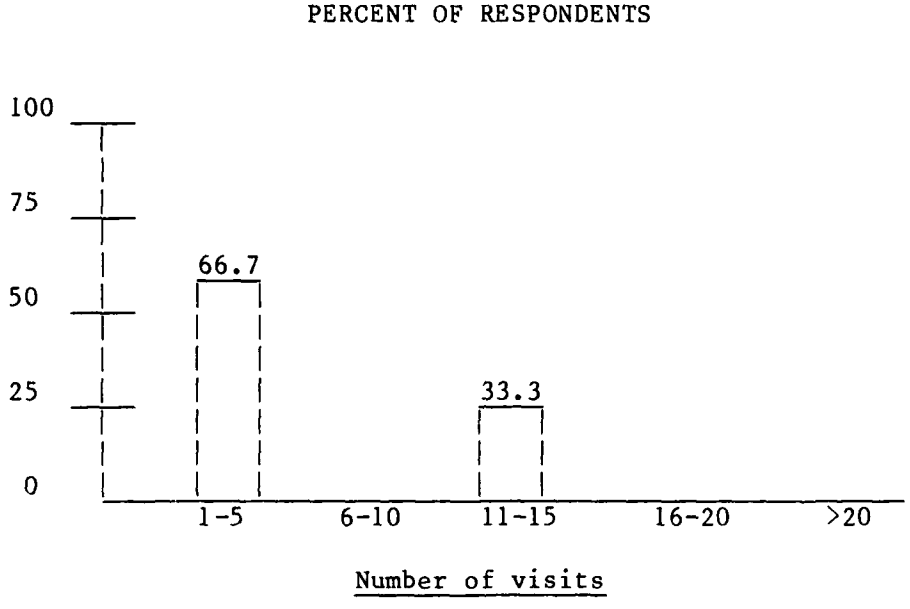


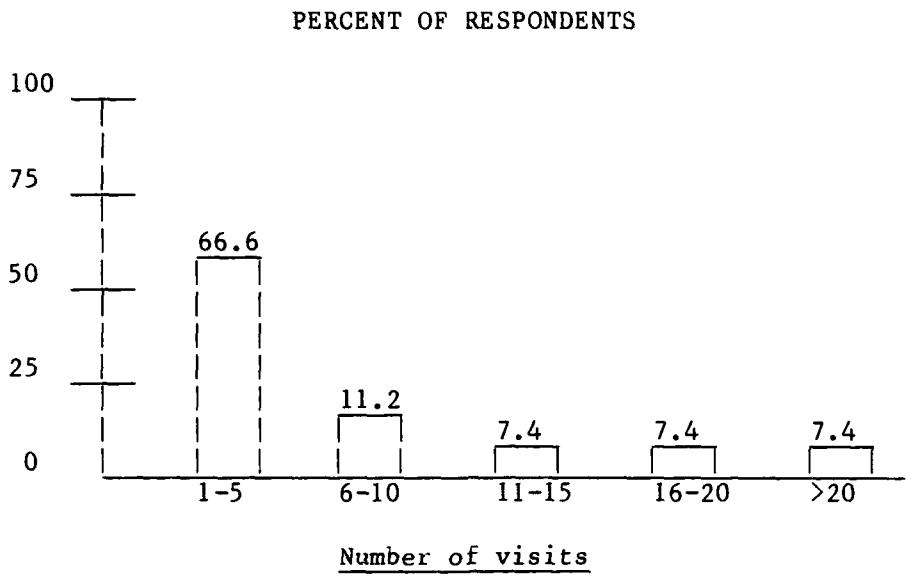
Fig. 6. Bar Graphs: The percentage of all respondent families using CTFs because of dissatisfaction with MTFs; classified by rank of sponsor. Percentages at the base of each bar graph represent the percent of families within each rank group that have utilized CTFs because of dissatisfaction with MTFs.

A series of bar graphs are displayed in figure 7, pages 49-51, that depict the number of visits that are attributed to the families of members with various lengths of active duty service. The majority of all CTF dissatisfied visits are in the 1-5 visit range. Graph I represents three families and, as such, has limited value as a predictor for the population. All of the other length of service ranges represent at least 15 families.

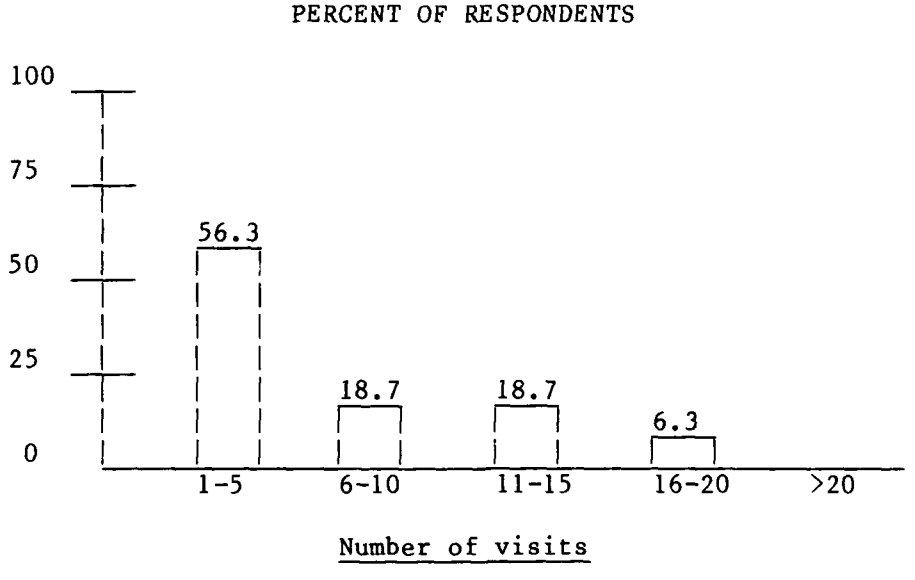
Graph I - Less than 5 Years



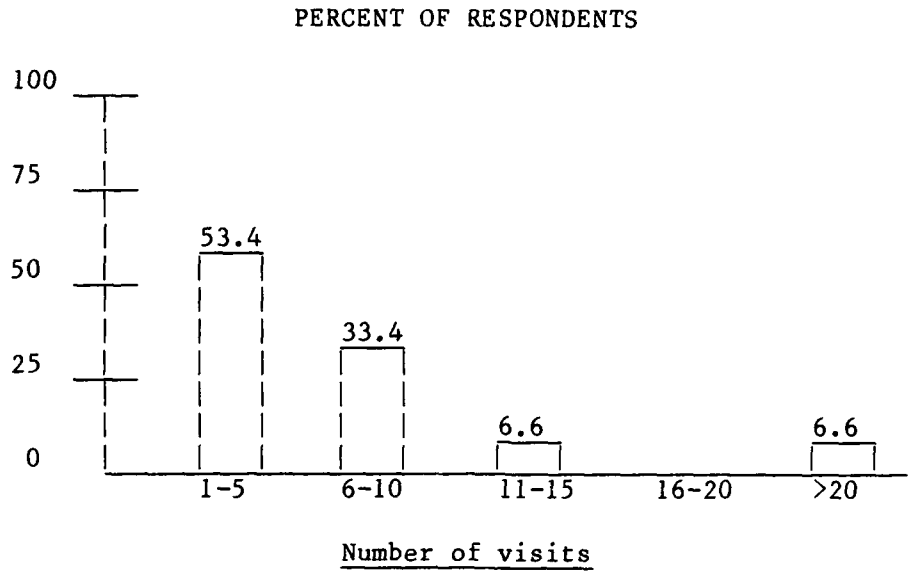
Graph II - 5 - 10 Years



Graph III - 11 - 15 Years



Graph IV - 16 - 20 Years



Graph V - Greater than 20 Years

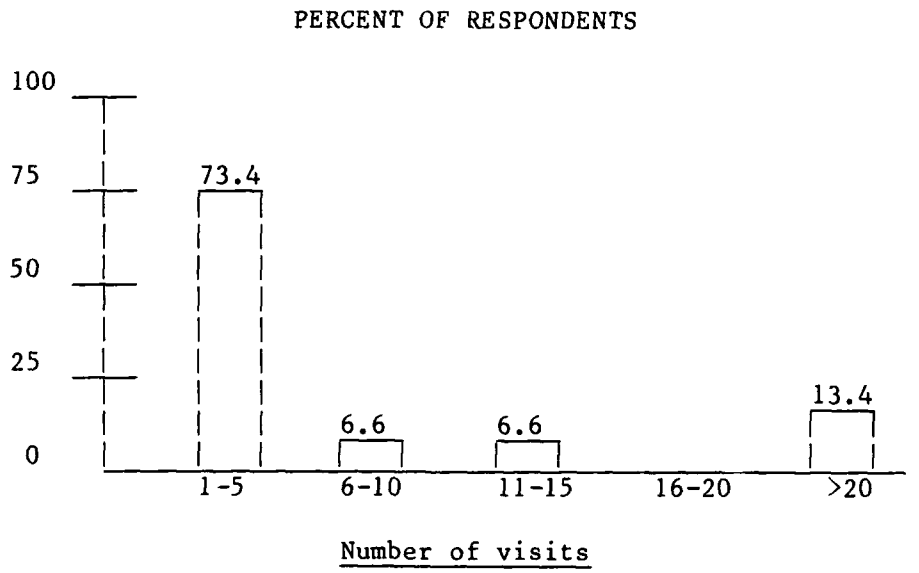
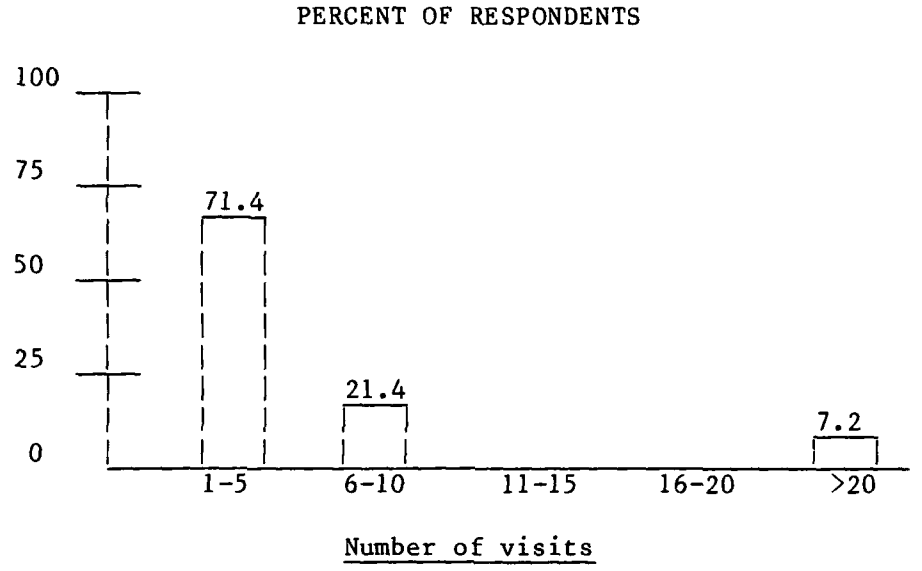


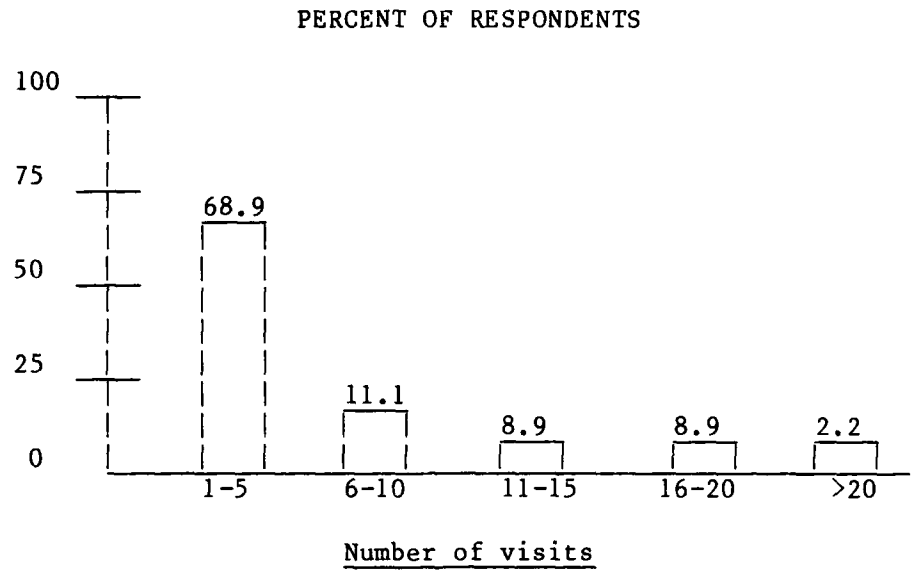
Fig. 7. Bar Graphs: The relative extent of visits to CTFs by active duty Navy dependents as a result of dissatisfaction with MTFs; classified according to the sponsor's length of service.

The graphs within figure 8, pages 52 and 53, represent the frequency of CTF visits by the population sample due to dissatisfaction with MTFs and is based upon family size. Graph I represents 14 family respondents; graph II, 45; and graph III, 17. The vast majority of these visits are in the 1-5 range and almost 80 percent fall within the first two ranges (less than 11 visits). Chi square analysis finds no association between the two variables of family size and number of CTF visits due to dissatisfaction. The 1984 DOD study did not address this area of demographic information.

Graph I - One Dependent



Graph II - Two or Three Dependents



Graph III - Four to Six Dependents

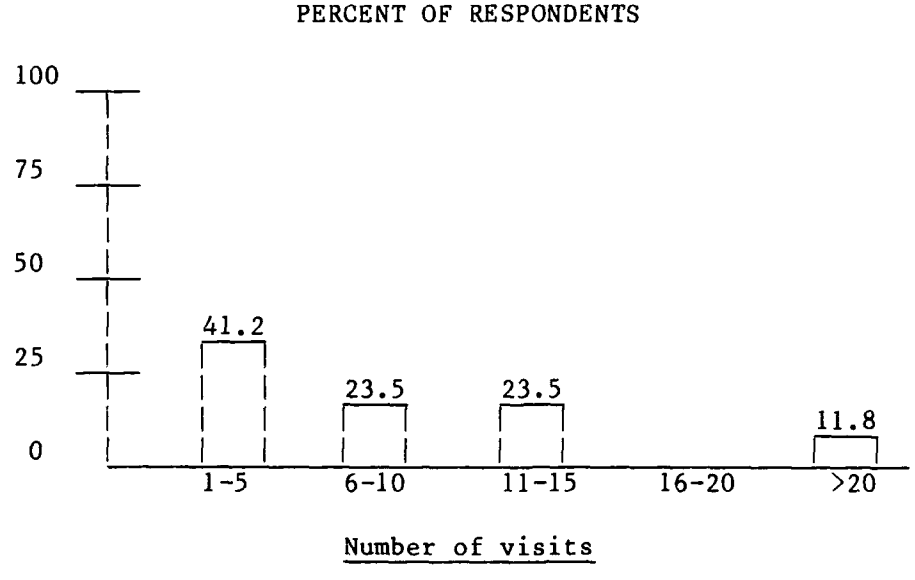
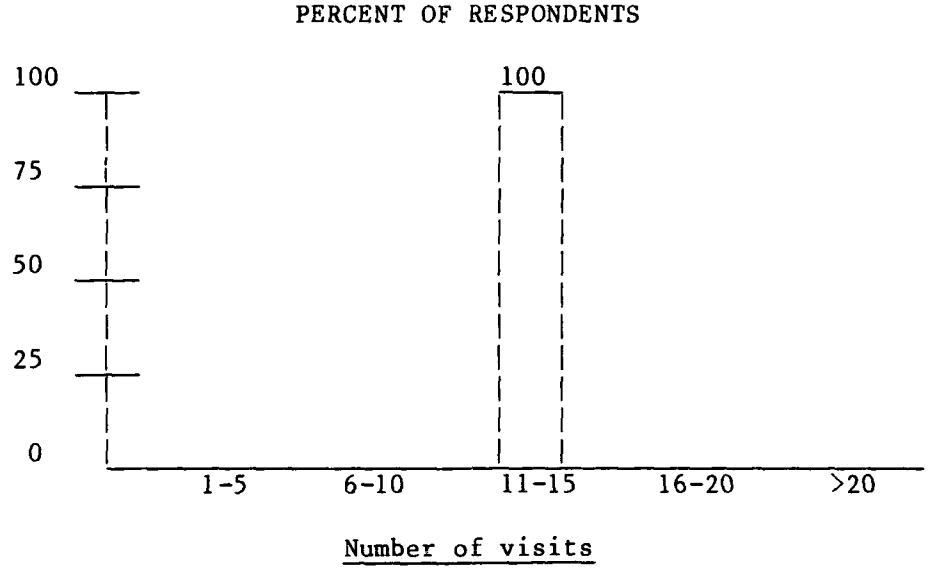


Fig. 8. Bar Graphs: The relative extent of visits to CTFs by active duty Navy dependents as a result of dissatisfaction with MTFs; classified according to the sponsor's family size.

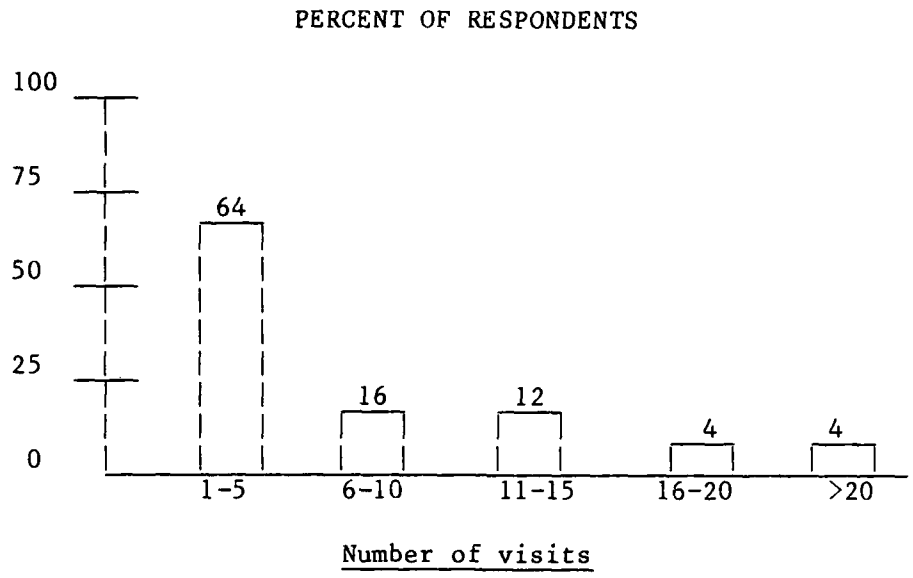
Figure 9, pages 54-56, shows the range of visits to CTFs because of dissatisfaction with MTFs based on gross family income. Graph I is a reflection of a single family within this income bracket. This family identified their source of payment for civilian care as the CHAMPUS program.

Chi square analysis finds no association between these two variables with alpha = .05.

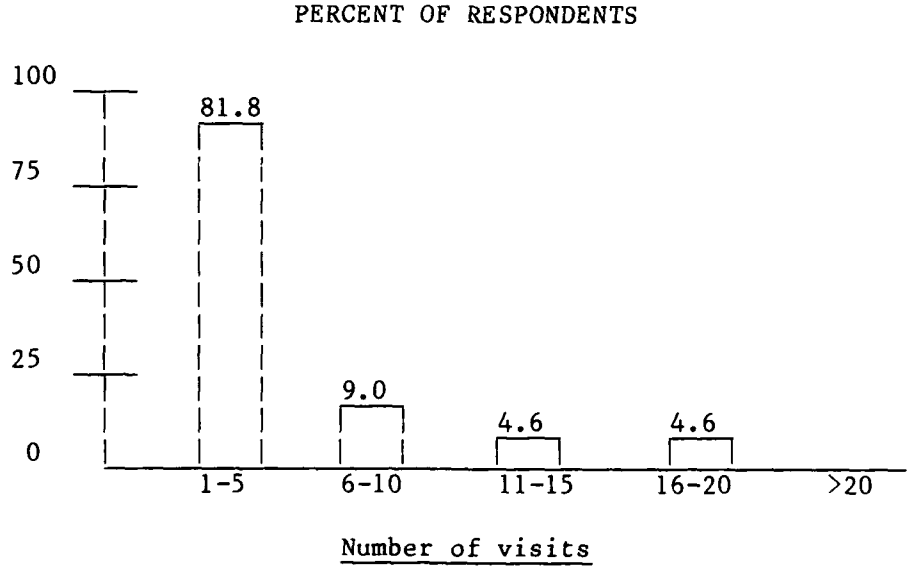
Graph I - Less than $10 K



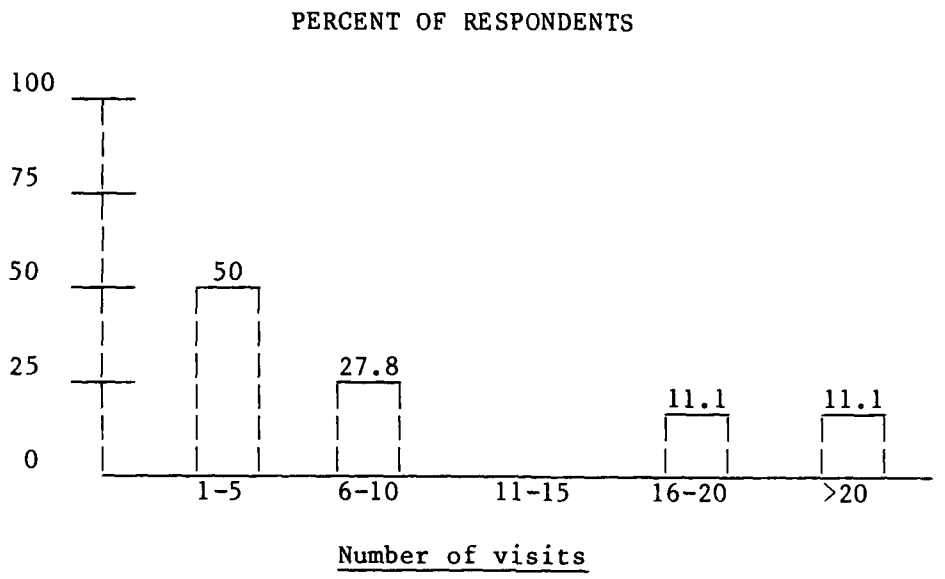
Graph II - $10 K - $24.9 K



Graph III - $25 K - $39.9 K



Graph IV - $40 K - $55 K



Graph V - Greater than $55 K

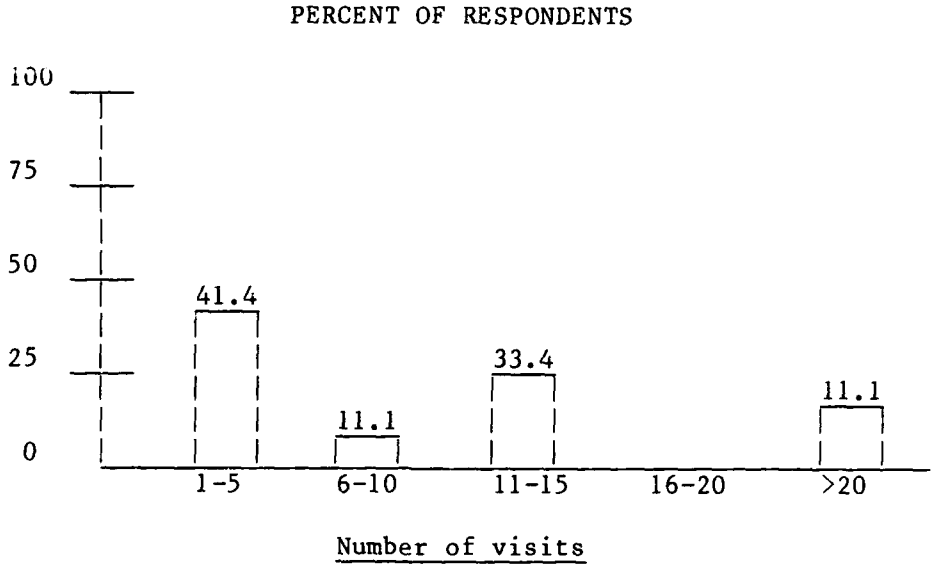


Fig. 9. Bar Graphs: Relative number of visits to CTFs because of dissatisfaction with MTFs by active duty Navy dependents, classified by gross family income level.

Survey data indicates that 90 percent of the sample respondents do not have health insurance coverage over and above their CHAMPUS entitlement. This compares closely with the 88.1 percent finding of the DOD study. Methods used to pay for the 1147 civilian outpatient visits are identified in Figure 10. The catagories which have the greatest percentage of use by the sample respondents are CHAMPUS, cash, and CHAMPUS and cash. These three categories account for almost 90 percent of all payments. Detailed information is not being addressed in this study regarding specific costs incurred by those who pay cash only for their civilian visits. It would be interesting in future studies to correlate paying cash with rank, monies spent for civilian care, number of visits, and level of consumer awareness regarding CHAMPUS benefits to suggest why beneficiaries of CHAMPUS are not utilizing it in these instances.

Comparing the source of payment findings of this study with the DOD study of 1984 finds local Navy families using CHAMPUS coverage less frequently than the larger CONUS Navy sample by 38.2 percent to 29.2 percent. Likewise, self payment is used less frequently with 54.2 percent for DOD and 28 percent for this study's population sample. The DOD study did not ask whether people used a combination of CHAMPUS and cash for outpatient payments. The present study found 31.2 percent of the respondents using this combination to meet CTF visit payments. Such a large percentage of families using both payment mechanisms deserves the attention of future studies to identify the circumstances surrounding the use of each specific payment method.

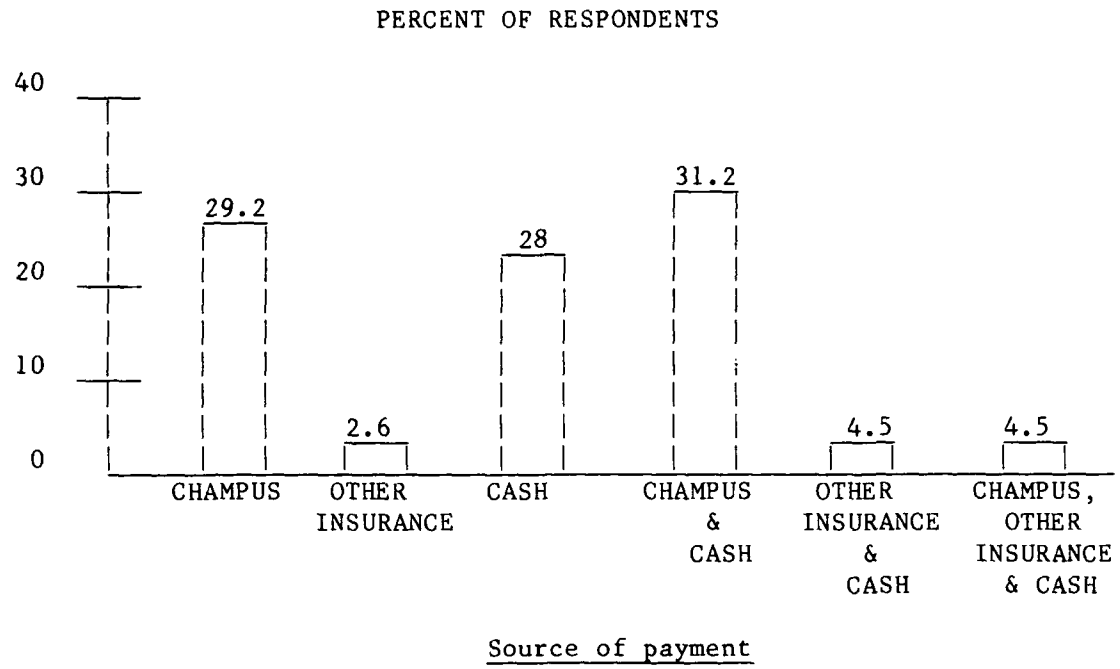


Figure 10. Bar Graph: Payment mechanisms used by sample respondents to pay for civilian outpatient medical care.

Figure 11, page 59, depicts the amount of out-of-pocket expenses incurred by the survey respondents for outpatient civilian care in 1984. From this data, in figure 10, less than 30 percent of the respondents spent more than $250.00 and of those, one-third spent greater than $500.00. Of the 18 respondents who spent greater than $500.00 for civilian care, four payed with CHAMPUS, eight used other health insurance, three paid cash and the other three used combinations of the above. Chi square analysis of family income versus dollars spent for civilian outpatient medical care suggests that there is a dependent association between the two variables.

The monetary range established for the DOD study differs from the present study in two significant ways: (1) the time frame of their study is only three months compared with the present study's 12 months; and (2) the range of monies expended, in their study, is smaller and includes a zero column. Nonetheless, extrapolation of the DOD results does permit comparisons to be made. Overall, 35.2 percent of the DOD sample spent out-of-pocket money for outpatient medical care visits in 1983. The present study does not capture this information in the same way. It identifies all who have spent a minimum of $100.00. That figure is 51.2 percent as identified in Figure 11. Add to that any amounts paid that were between $1.00 and $100.00 (undetermined in the data collected) and the comparison of the difference between DOD and this study are staggering. The reasons for this difference could be related to satisfaction with care/services and/or availability of those services at the local MTFs. Comparisons of satisfaction results of this study with DOD's may hold the answers to this question.

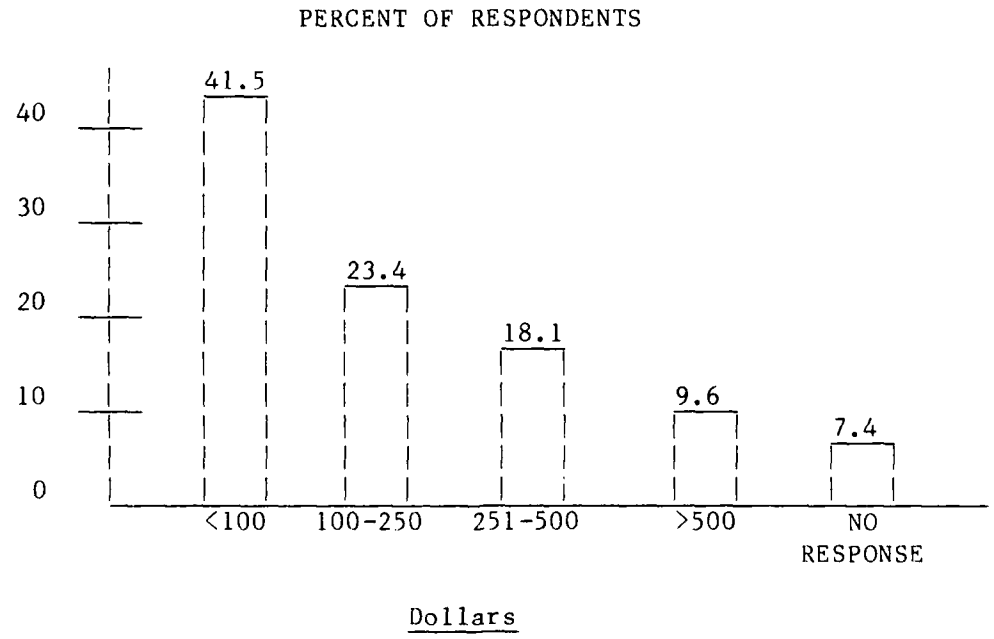


Fig. 11. Bar Graph: The percentage of monies spent by sample respondents for civilian provided outpatient medical care in 1984 by dollar groupings.

Perceptions of Satisfaction

The primary purpose for this study was to solicit, measure, and evaluate the perceptions of active duty Navy dependents regarding the medical care and services that are available to them from Naval MTFs in the Tidewater Virginia area. Fifteen specific questions addressing various aspects of medical care and services were developed for the respondents' critical review and evaluation. A 5-point Likert scale was established to provide a structured format for measurement of these perceptions. A five-point rating was the highest while a one-point rating was the lowest. Six of the questions, covering five distinct dimensions of health care have been selected for comparison. The dimensions addressed are: (1) accessibility, (2) practioner humaneness, (3) practitioner availability, (4) physician continuity, and (5) practitioner competence. Accessibility is split into the categories of service and location accessibility. These areas were addressed by the DOD Health Care Survey of 1984. Their study surveyed a sample of all uniformed service personnel while this analysis is specifically focused on a specific population of military health care beneficiaries. The data obtained from this study expands the information presented in the DOD survey. Additionally, questions that correspond to "Patient Satisfaction Survey-Outpatient" questions used at Portsmouth Naval Hospital will be compared.

Each of the six questions is analyzed in the same basic format. Respondents are separated into five groups depending upon the self-categorization of their dependents use of outpatient medical care facilities, question 11, Appendix G. The groups are labeled "A" through "E" with the

definition for each group previously described on pages 26 and 27. Upon the grouping of respondents, a mean score for each question is calculated with a corresponding standard deviation. The groups are then matched with each other in pairs so that group A is compared with each of the other four groups (B, C, D, & E) and group C is matched with group B. A confidence interval with alpha = .05 is calculated for the difference between matched group means to determine whether a statistically significant difference is present. If the value "zero" is within the confidence interval, the existence of a significant difference between the perceptions of the two groups will be disclaimed. A confidence interval that excludes the value "zero" will be accepted as indicating a significant difference between the two means.

Throughout this section, the findings of this study are compared to the findings of the DOD's 1984 study. They took a somewhat different approach at collecting their data. With two categories of satisfied perceptions, neutral, and two categories of dissatisfied perceptions, the respondents of DOD's study were able to specify their level of satisfaction with MTFs. This study asks the respondents to quantify the level of care or service received from MTFs. Subsequently the investigator, as a tool for discussion, infers levels of satisfaction based on the respondents' satisfaction question selections. Specifically, if the mean score on a question, by any group, is close to 5.0, the respondents are judged to be satisfied. When a score is close to 4.0 their satisfaction level is judged to be somewhat satisfied, and so on, for each of the quantitative satisfaction selections.

The basis for respondents' perceptions is not addressed in this study. Many different circumstances have the potential for influencing the beneficiaries' opinions of medical care and services. Specific study of the reasons people have various perceptions might provide invaluable insight for those who attempt to manipulate patients' perceptions.

Accessibility

The first area to be addressed is accessibility. For this analysis, two specific access questions are evaluated. Table 2, page 64, reflects analysis among respondent groups regarding "service accessibility." Specifically, the question assesses the ability to get an appointment for follow-up care within an acceptable amount of time. Table 3, page 64, addresses another area of access, "location accessibility." Here the respondent identifies his perceptions of distance, weather and travel time as they effect his ability to reach the MTF.

The DOD study uses multiple questions for each area of investigation and then produces a weighted average which establishes an overall score. Since this study more specifically evaluates each question separately, comparisons of results between the two studies will be open to some question. Evaluations of this study and the present Naval Medical Department outpatient satisfaction survey will be limited because of question formating differences.

When evaluating service accessibility, Table 2 demonstrates that users of MTFs only (group A) have a mean perception of satisfaction measuring 4.07. Using DOD ratings, this score translates to an average response of "most of the time." Comparing this, using statistical techniques previously described, to CTF users only (group E) at 2.83, finds that there is a significant difference

between the two groups. There is also a significant difference between group A and those who use both MTFs and CTFs with dissatisfaction being the exclusive reason for civilian visits (group C). Looking at all of the groups finds groups B and D being no different from group A. Together, groups A, B, and D account for 91 families (70%) compared with 39 families (30%) represented by groups C and E.

Group A respondents are less satisfied with location accessibility than service accessibility as demonstrated by mean scores of 3.61 and 4.07, respectively. Group B members differ from group A in their perceptions of location accessibility while groups E and C members maintained the same relation with group A as they had with service accessibility. Groups A and D had similarly satisfied perceptions with scores of 3.61 and 3.17, respectively. They represent 52.2 percent of the respondents. The less satisfied ratings of groups B, C, and E represent 47.8 percent of the respondents. Their mean scores were 3.0, 3.03 and 2.56, respectively.

Comparing the aggregate of these scores with the DOD study finds this study's participants responding more favorably than the latter group.

Table 2. A comparison of active duty Navy dependent user group perceptions of MTF service accessibility (satisfaction question #19B).

Groups Compared		Mean Response*		Standard Deviation		
1st Group	2nd Group	1st Group	2nd Group	1st Group	2nd Group	Significantly Different? **
A	E	4.07	2.83	1.09	1.47	yes
A	D	4.07	4.05	1.09	.83	no
A	C	4.07	2.82	1.09	1.33	yes
A	B	4.07	3.74	1.09	1.13	no
C	B	2.82	3.74	1.33	1.13	yes

* Based on 5-point Likert scale with 5 being most satisfied.
** Based on confidence interval analysis at alpha = .05.

Table 3. A comparison of active duty Navy dependent user group perceptions of MTF location accessiblity (satisfaction question #27B).

Groups Compared		Mean Response*		Standard Deviation		
1st Group	2nd Group	1st Group	2nd Group	1st Group	2nd Group	Significantly Different? **
A	E	3.61	2.56	1.20	1.51	yes
A	D	3.61	3.17	1.20	1.26	no
A	C	3.61	3.03	1.20	1.43	yes
A	B	3.61	3.00	1.20	1.41	yes
C	B	3.03	3.00	1.43	1.41	no

* Based on 5-point Likert scale with 5 being most satisfied.
** Based on confidence interval analysis at alpha = .05.

Practitioner Humaneness

This question addresses the interest that the doctor and staff have for the patient. The data in Table 4, indicates that the average satisfaction of group A members is slightly less than 4 based on the 5-point Likert scale. Significant differences of mean responses are found between group A members and groups C and E, members. Groups A, B, and D are grouped at the high end of the satisfaction scale with scores ranging from 3.91 to 3.65 and groups C and E, with scores of 2.74 and 2.63, are at the low end. Groups A, B, and D account for 72.8 percent of the respondents with the balance of 27.2 percent accounted for by the low end groups. These scores closely compare with those found by the DOD study. They found 67.6 percent with favorable ratings and 32.5 percent with dissatisfied ratings.

Table 4. A comparison of active duty Navy dependent user group perceptions of MTF practitioner humaneness (satisfaction question #24B).

Groups Compared		Mean Response*		Standard Deviation		
1st Group	2nd Group	1st Group	2nd Group	1st Group	2nd Group	Significantly Different? **
A	E	3.91	2.63	1.02	1.30	yes
A	D	3.91	3.88	1.02	1.02	no
A	C	3.91	2.74	1.02	1.22	yes
A	B	3.91	3.65	1.02	1.23	no
C	B	2.74	3.65	1.22	1.23	yes

* Based on 5-point Likert scale with 5 being most satisfied.
** Based on confidence interval analysis at alpha = .05.

Practitioner Availability

Are you able to get in touch with a doctor when you have the need to? Analysis of the perceptions of the respondent groups finds that 78.8 percent of them have statistically similar perceptions ranging from 3.55 to 2.71. Table 5 demonstrates group C, at 2.61, as the only group with a significant mean difference from group A. The DOD study found slightly lower but generally similar scores with those expressing satisfaction equal to 69.5 percent compared with 72.5 percent for this study.

Table 5. A comparison of active duty Navy dependent user group perceptions of MTF practitioner availability (satisfaction question #25B).

Groups Compared		Mean Response*		Standard Deviation		
1st Group	2nd Group	1st Group	2nd Group	1st Group	2nd Group	Significantly Different? **
A	E	3.47	2.71	1.20	1.11	no
A	D	3.47	3.55	1.20	1.40	no
A	C	3.47	2.61	1.20	1.28	yes
A	B	3.47	3.29	1.20	1.10	no
C	B	2.61	3.29	1.28	1.10	yes

* Based on 5-point Likert scale with 5 being most satisfied.
** Based on confidence interval analysis at alpha = .05.

Physician Continuity

For a variety of reasons, basic military functional organization interferes with the patient's opportunity to receive follow-up care from the same physician. Studies have found that physician continuity is an important concern of patients, especially those with chronic problems.[4] How does the active duty Navy dependent feel about this issue? Question 28 of the survey instrument asks that question. Table 6, demonstrates the findings. Essentially all respondents had the same opinion. The average scores range from 2.63 to 2.00 with no significant difference noted between any of the matched groups. With all of the sample respondents expressing relative dissatisfaction (i.e., scores less than 3.0), comparisons with DOD's study are quite remarkable. The DOD findings reveal 39.7 percent of their sample to have satisfied perceptions on this matter. The differences are probably due to questionnaire wording. This study asks respondents whether they find the general inability to see the same health provider to be a problem. DOD asks three similarly worded questions that address what the beneficiary has experienced in the way of continuity. Consequently, the major difference is that this study asks for beneficiary perceptions regarding physician continuity while DOD's study asks for specific experiences with physician continuity.

Table 6. A comparison of active duty Navy dependent user group perceptions of MTF physician continuity (satisfaction question #28).

Groups Compared		Mean Response*		Standard Deviation		
1st Group	2nd Group	1st Group	2nd Group	1st Group	2nd Group	Significantly Different? **
A	E	2.58	2.00	1.43	1.32	no
A	D	2.58	2.23	1.43	1.07	no
A	C	2.58	2.14	1.43	1.22	no
A	B	2.58	2.63	1.43	1.50	no
C	B	2.14	2.63	1.22	1.50	no

* Based on 5-point Likert scale with 5 being most satisfied.
** Based on confidence interval analysis at alpha = .05.

Practitioner Competence

All levels of health practitioners are included in this survey question. Beneficiaries were asked to rate their satisfaction with the skill level of the practitioners that have treated them. Table 7, outlines the results of confidence interval evaluation among these groups. Group A has the highest perception with a mean score of 4.15. No significant difference is demonstrable between groups A and D, with group D at 3.96. Groups A and D represent 50% of the sample respondents. The other half of the respondents are statistically different from group A in their perceptions of practitioner competence. Their average scores range from 3.70 to 3.24. All of the groups had averages that were greater than neutral which implies overall satisfaction. DOD respondents demonstrated higher satisfaction with a 65.4 percent satisfaction rate.

Table 7. A comparison of active duty Navy dependent user group perceptions of MTF practitioner competence (satisfaction question #30B).

Groups Compared		Mean Response*		Standard Deviation		
1st Group	2nd Group	1st Group	2nd Group	1st Group	2nd Group	Significantly Different? **
A	E	4.15	3.25	.80	.89	yes
A	D	4.15	3.96	.80	.82	no
A	C	4.15	3.24	.80	1.06	yes
A	B	4.15	3.70	.80	.97	yes
C	B	3.24	3.70	1.06	.97	no

* Based on 5-point Likert scale with 5 being most satisfied.
** Based on confidence interval analysis at alpha = .05.

Group Characteristics

Figures 12 through 16, pages 70-72, demonstrate the relative perceptions of each group of respondents, separately, over the five areas addressed in the analysis. Members of group A are satisfied the majority of the time in all areas except physician continuity, figure 12. They rate practitioner competence the highest with service accessibility close behind.

Members of group E, figure 16, page 72, demonstrate the greatest satisfaction with practitioner competence. All other areas are rated less than 3 on the 5-point Likert scale and, as such, demonstrate a majority of dissatisfaction. In all areas, except for practitioner competence groups A and E are statistically different.

Members of group C, figure 14, demonstrate greatest satisfaction with practitioner competence. The difference between groups A and C are significant in all areas except physician continuity. In this area, group A has the majority of its members expressing less than a neutral score along with group C members.

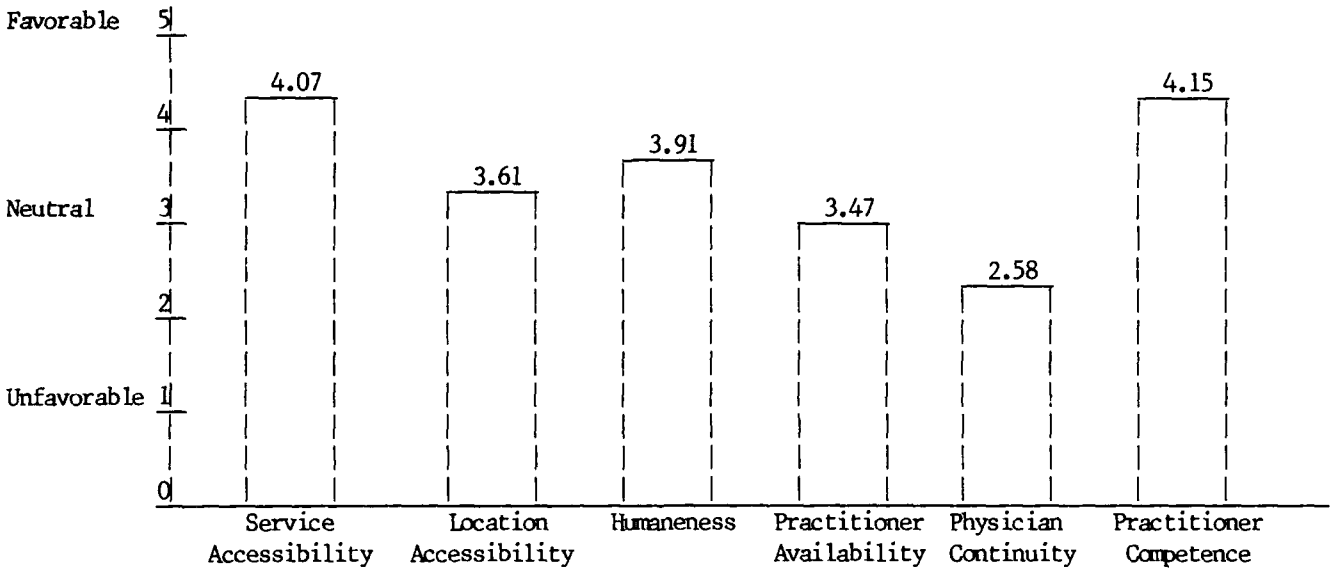


Figure 12. Bar Graphs: Relative perceptions of active duty Navy dependents who use military medical care exclusively, Group A, with the care and services available from MTFs.

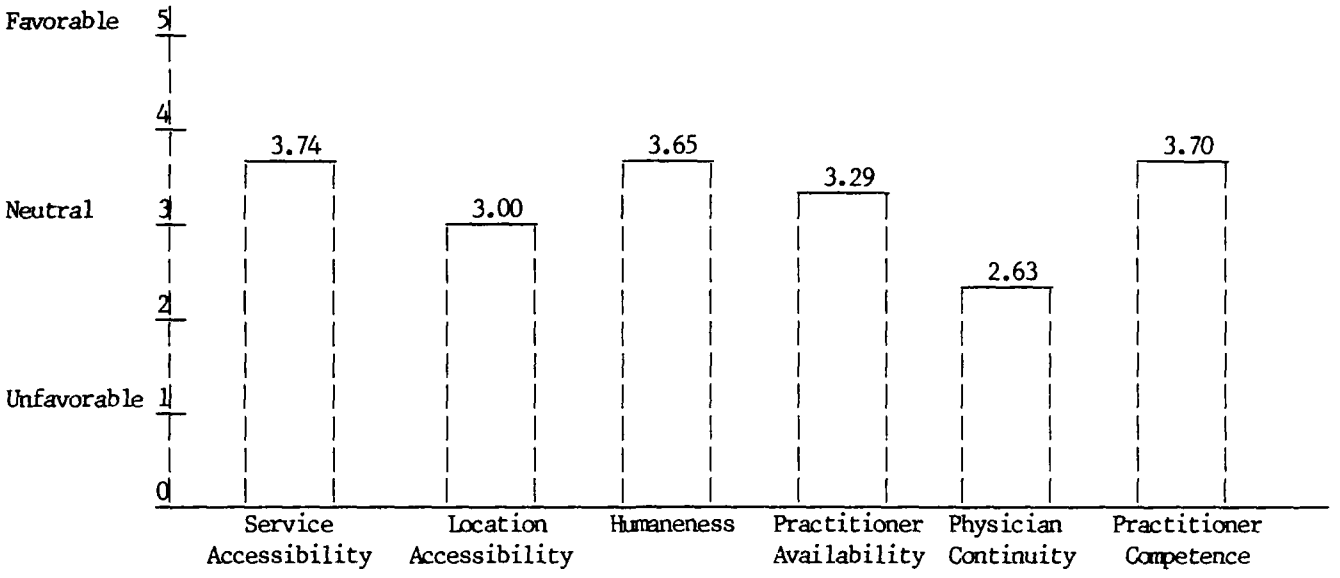


Figure 13. Bar Graphs: Relative perceptions of active duty Navy dependents who use both military and civilian sources of outpatient medical care, Group B, with the care and services available from MTFs.

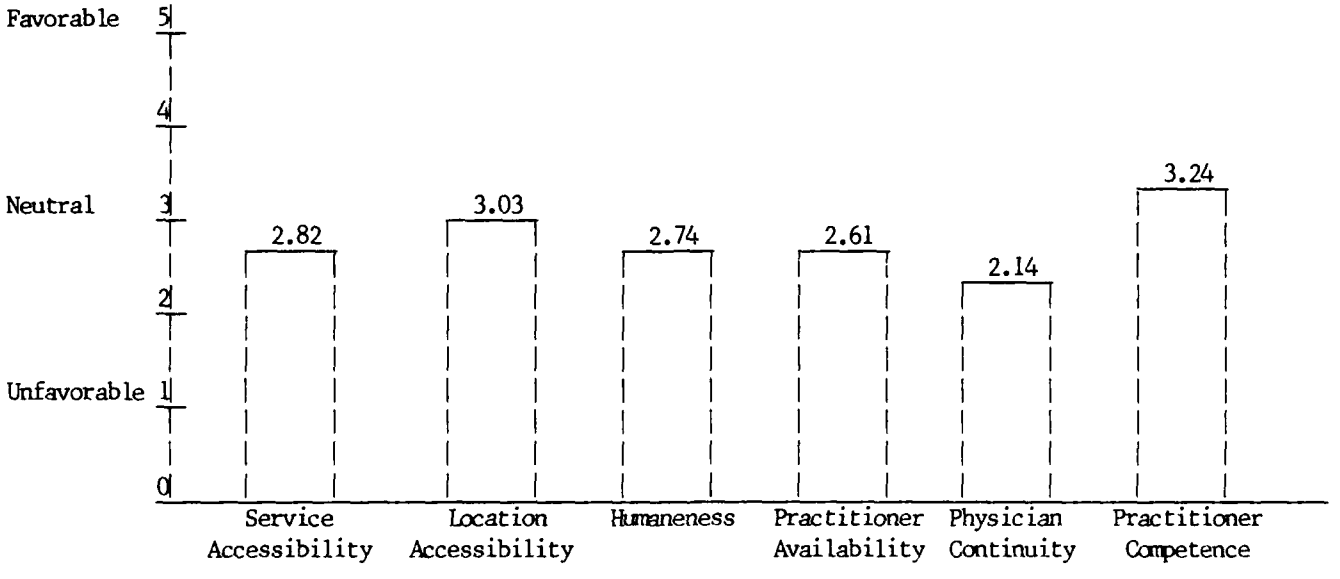


Figure 14. Bar Graphs: Relative perceptions of active duty Navy dependents who use both military and civilian sources of outpatient medical care, Group C, with the care and services available from MTFs.

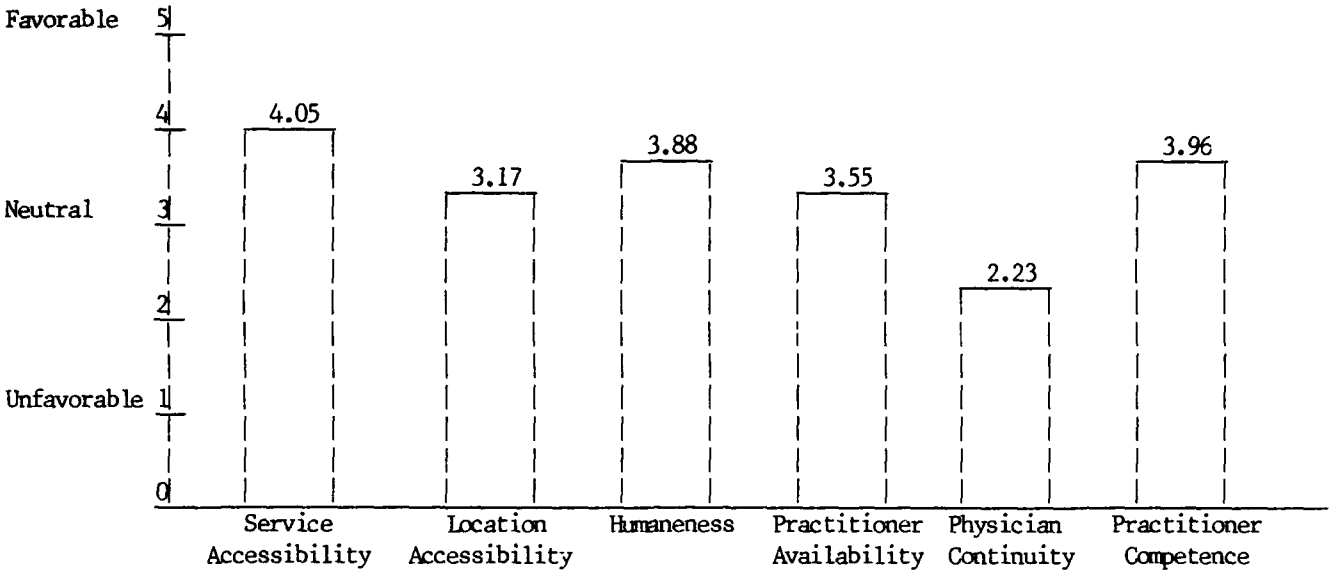


Figure 15. Bar Graphs: Relative perceptions of active duty Navy dependents who use both military and civilian sources of outpatient medical care, Group D, with the care and services available from MTFs.

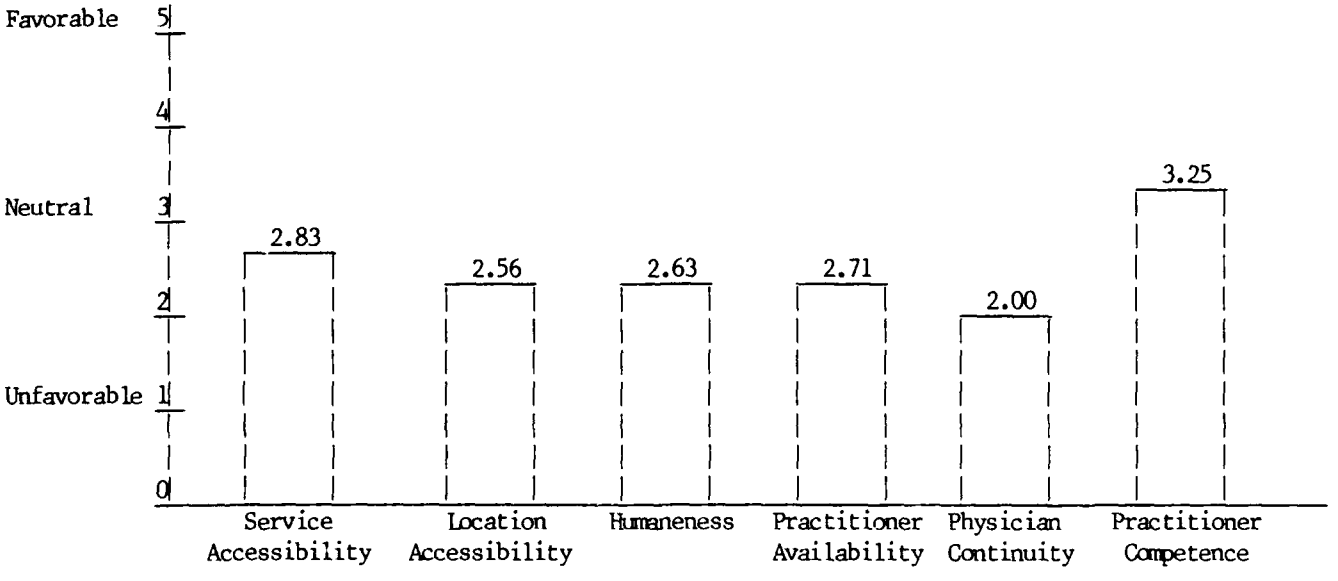


Fig. 16. Bar Graphs: Relative perceptions of active duty Navy dependents who use civilian sources of outpatient medical care exclusively, Group E, with the care and services available from MTFs.

Lessons Learned from the Study

Only one problem surfaced regarding the way the questionnaire was written. Specifically, questions 13 and 14 were designed to include all of the possible reasons that a military medical care beneficiary might have for using CTFs. The assumption was that MTF care is the logical first choice of the consumer because it is a "coveted" fringe benefit. Therefore, a person would have two logical choices for not using CTFs; (a) if the services needed were not available at the MTF and (b) if the consumer was not satisfied with care and/or services that were available from the MTF. A few respondents tried to offer a third category that did not fit this thought pattern. In these instances it may be that emergency care at CTFs was considered missing from the possible alternatives. An assumption made by the investigator was that emergency care would find its proper place under the category of "non-available." This is based upon the premise that emergency care requires immediate response and excessive distance to an MTF constitutes nonavailability.

To correct this problem in future studies, clarification of events that constitute "non-availability" and "dissatisfaction" are recommended.

FOOTNOTES

1. A Reference Guide to the 1984 Military Health Services System Beneficiary Survey (Arlington, VA: Systems Research and Applications Corporation, [December 1984]), p. II-5.

2. Alden P. Anderson, Evaluating the Impact of Consumer Satisfaction on Utilization of Health Services in the Military Health Services System, An unpublished thesis from the MHA program at the University of Minnesota, June 1981, p. 48.

3. A Reference Guide to the 1984 Military Health Services System Beneficiary Survey, p. ES2.

4. Robert H. Fletcher et al, "Patients' Priorities for Medical Care," Medical Care, 21, February 1983, p. 148.

III. CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Identifying consumer satisfaction levels has been demonstrated through literature review to be of considerable importance in the evaluation of health care. Naval medical authorities have demonstrated their acceptance of this trend through patient satisfaction survey development and implementation at MTFs. The effectiveness of consumer surveys depends upon the contents of the instrument, the methods of solicitation of information from the consumer and the existence of criteria to which the survey data can be compared and followed up with appropriate actions. This study addresses a comprehensive solicitation of information from a subgroup of beneficiaries of military medical services.

Military beneficiaries, as a group, have a number of characteristics that differentiate them from other groups of medical care consumers. Of significance is the fact that the medical care offered to the individual sponsors and their families is through the employing organization. As a whole this is the Department of Defense. More specifically, each of the service organizations "takes care of its own" and takes pride in so doing. Secondly, medical care coverage is provided free of monetary charge in the MTF system. Third, medical care coverage is a condition of employment and is considered a valuable fringe benefit of military service.

In evaluating medical care and services, there is some value in considering the opinions of those who actually use a medical facility. However, when any health organization limits its care and service evaluations to users only it runs the risk of excluding members of the consumer population. This specifically applies to those who find services unavailable and those who are dissatisfied with services. A comparison of the perceptions of satisfaction of

various subgroups of an active duty Navy dependent population sample has been the focus of this study. The findings provide important data essential for the evaluation of Naval medical patient satisfaction survey mechanisms.

Cognizant of the limitations previously mentioned for this study it has been found that significant perceptual differences do exist among various groups of military dependent outpatient medical care consumers. Members who use military treatment facilities exclusively as well as those who uses both military and civilian treatment facilities (all civilian care due to non-availability of services from the MTF) have been found to be closely related. Their levels of satisfaction are, most often, significantly greater than the other subgroups of active duty Navy dependent beneficiary consumers. It does not take mathematical genius to guess that members of the military only user group stand a much greater chance of being queried regarding their perceptions of Navy medicine than do the other user groups under the current system of questionnaire feedback. It seems logical to suggest that Naval patient satisfaction surveys are biased toward exclusive users of the MTF. Based on the findings of this study, the bias is toward more favorable evaluation of care and services at MTFs.

The role of the medical care fringe benefit, specifically MTF sponsored care and services, as a morale builder and an important recruiting device for developing and maintaining the active duty military force requires that attention be given to the comprehensive evaluation of beneficiary perceptions of satisfaction with medical care and services. Comprehensive evaluation, inclusion of all beneficiaries of military health benefits appears to be necessary based upon the divergence of opinion found in this study. Had there been no differences uncovered, the feedback presently received from current Naval patient satisfaction evaluation processes could be assumed to represent the whole of the population.

Recommendations

Based upon the results of this study, the following recommendations are made:

1. All members of the military medical care beneficiary population, regardless of their MTF utilization, should have an equal chance of participating in patient satisfaction surveys.
2. Questionnaires should address patient care satifiers as used in this study and supported by the literature.
3. Further study of demographic data should be conducted to evaluate intra-group characteristics.
4. Additional studies should be initiated to determine how and why beneficiaries become dissatisfied with MTF provided care and services.

These recommendations are made for one purpose only. Navy medicine must be sensitive to the needs of its beneficiary population. Through comprehensive evaluation of beneficiary perceptions at the local command level, the varied opinions of beneficiary sub-populations can be accounted for and addressed. This feedback and evaluation, with subsequent corrective actions and/or consumer education will strengthen the relationship between the medical providers and the beneficiary population.

Accepting input of a critical nature from all of our beneficiaries and demonstrating our intent to correct deficiencies for improved service will go a long way toward harmonious and cooperative relations between the Naval medical community and her beneficiaries.

BIBLIOGRAPHY

BOOKS

Byrkit, Donald R. Elements of Statistics: An Introduction to Probability and Statistical Inference, 2nd Edition. New York: D. Van Nostrand Company, 1975.

Daniel, Wayne W. Biostatistics: A Foundation for Analysis in the Health Services 2nd Edition. New York: John Wiley and Sons, 1978.

Kerlinger, Fred N. Foundations of Behavioral Research, 2nd Edition. New York: Holt, Rinehart and Winston, Inc., 1973.

Mechanic, Davis. Handbook of Health, Health Care, and the Health Professions. New York: The Free Press, 1983.

Slonim, Morris. Sampling: A Quick, Reliable Guide to Practical Statistics. New York: Simon and Schuster, 1960.

Treece, Eleanor W. and Treece, James W., Jr. Elements of Research in Nursing, 2nd Edition. Saint Louis: C.V. Mosby Company, 1977.

PERIODICALS

Baker, Brian L. and Wimberly, Russell J. The Use of Stratified Sampling and Discrimant Analysis in Patient Perception Surveying: Results of a Study at an Army Community Hospital." Military Medicine 149 (August 1984): 446-450.

Carey, Raymond G., and Posavac, Emil J. "Using Patient Information to Identify Areas for Service Improvement." Health Care Management Review (Spring 1982): 43-48.

Fletcher, Robert H; O'Malley, Michael S,; Earp, JoAnne; Littleton, Terry A,; Fletcher, Suzanne W.; Greganti, Andrew; Davidson, Richard A.; and Taylor, James. "Patient Priorities for Medical Care." Medical Care 21 (February 1983): 234-242.

Grant, Gary J. "Patient Satisfaction with a Totally Government Financed and Administered Health Care System: A Sampling of Current Military Medicine." Military Medicine 147 (August 1982): 667-671.

"Health Care in Services Rated Low." Navy Times, 27 May 1985.

Hennelly, Virginia D.; Boxerman, Stuart B. "Out-of-Plan Use and Disenrollment: Outgrowths of Dissatisfaction With a Prepaid Group Plan." Medical Care 21 (March 1983): 348-359.

Hines, Brian L.; Clarkson, Quentin D.; and Smith, David D. "Development and Use of a Patient Satisfaction Questionnaire." Journal of Family Practice 4 (1977): 148-149.

Hulka, Barbara S.; Kupper, Lawrence L.; Daly, Mary B.; Cassel, John C.; and Schoen, Frederic. "Correlates of Satisfaction and Dissatisfaction with Medical Care: A Community Perspective." Medical Care 13 (August 1975): 648-658.

Hulka, Barbara S.; Zyzanski, Stephen J.; Cassel, John C.; and Thompson, Shirley J. "Scale for the Measurement of Attitudes toward Physicians and Primary Medical Care." Medical Care 8 (September-October 1970): 429-435.

Lebow, Jay L. "Consumer Assessments of the Quality of Medical Care." Medical Care 12 (April 1974): 328-337.

Locker, David and Dunt, David. "Theoretical and Methodological Issues in Sociological Studies of Consumer Satisfaction with Medical Care." Social Science and Medicine 12 (1978): 283-292.

Mangelsdorff, David A. "Patient Satisfaction Questionnaire." Medical Care 17 (January 1979): 86-91.

Mechanic, David; Weiss, Norma; and Cleary, Paud D. "The Growth of HMOs: Issues of Enrollment and Disenrollment." Medical Care 21 (March 1983): 338-347.

Nelson-Wernick, Eleanor; Currey, Hal S.; Taylor, Paul W.; Woodbury, Marion E.; and Cantor, Alan. "Patient Perception of Medical Care." Health Care Management Review (Winter 1981): 65-72.

Rankin, Wayne. "The Consumer's View: A Satisfaction Survey." American Health Care Association Journal 8 (July 1982): 18-20.

Rethmeier, Kenneth A. "A Study of Outpatient Attitudes on the Organization and Delivery of Military Health Services." U. S. Navy Medicine 63 (January 1974): 31-40.

Roghmann, Kalus J.; Hengst, Acco; and Zastowny, Thomas R. "Satisfaction with Medical Care: Its Measurement and Relation to Utilization." Medical Care 17 (May 1979): 461-477.

Scitovsky, Anne E.; Benhan, Lee; and McCall, Nelda. "Out-of-Plan Use Under Two Prepaid Plans." Medical Care 19 (December 1981): 1165-1192.

Shortell, Stephen M.; Richardson, William C.; LoGerfo, James P.; Diehr, Paula; Weaver, Barbara; and Green, Kathy E. "The Relationship Among Dimensions of Health Services in Two Provider Systems: A Casual Model Approach." Journal of Health and Social Behavior 18 (June 1977).

Sommers, Paul A. and Thompson, Mark A. "The Best Malpractice Insurance of Them All: Consumer Satisfaction." Health Marketing Quarterly (Fall 1983): 83-92.

Sorensen, Andrew A. and Wersinger, Richard P. "Factors Influencing Disenrollment From an HMO." Medical Care 19 (July 1981): 766-773.

Stewart, Moira A. and Wanklin, James. "Direct and Indirect Measures of Patient Satisfaction with Physician's Services." Journal of Community Health 3 (Spring 1978): 195-204.

Stoeckle, John D.; Zola, Irving K.; and Davidson, Gerald E. "On Going to See the Doctor, the Contributions of the Patient to the Decision to Seek Medical Aid." Journal of Chronic Diseases 16 (1963): 975-989.

Tessler, Richard and Mechanic, David. "Consumer Satisfaction with Prepaid Group Practice: A comparative Study." Journal of Health and Social Behavior 16 (1975): 95-113.

Ware, John E., Jr., and Davies, Allyson R. "Behavioral Consequences of Consumer Dissatisfaction with Medical Care." Evaluation and Program Planning 6 (1983): 291-297.

Ware, John E., Jr.; Davies-Avery, Allyson; and Stewart, Anita L. "The Measurement and Meaning of Patient Satisfaction." Health and Medical Care Services Review 1 (January/February 1978): 1-15.

Wersinger, Richard P. and Sorensen, Andrew A. "Demographic Characteristics and Prior Utilization Experience of HMO Disenrollees Compared with Total Membership." Medical Care 20 (December 1982): 1188-1196.

Wolfe, T. E. "Patient Acceptance Survey." U. S. Navy Medicine 63 (January 1974): 44-49.

Zapka, Jane M. "Assessment of Member Satisfaction in an HMO: Understanding the Interaction of Variables and their Implications." Journal of Ambulatory Care Management 2 (November 1979): 29-45.

Zastowny, Thomas R.; Roghmann, Klaus J.; and Hengst, Acco. "Satisfaction with Medical Care: Replications and Theoretical Reevaluation." Medical Care 21 (March 1983): 294-322.

GOVERNMENT PUBLICATIONS

Department of Defense. Assistant Secretary of Defense (Health Affairs). A Reference Guide to the 1984 Miliary Health Services System Beneficiary Survey, by Systems Research and Applications Corporation (Arlington, VA, 1984).

Department of the Navy. Bureau of Medicine and Surgery. Establishment of Health Care Quality Assurance/Risk Management Program BUMEDINST 6320.62 (29 May 1981).

Department of the Navy. Naval Hospital Portsmouth. Support of Medical and Dental Department Organizations of the Operating Forces. NAVHOSPPTSVAINST 6440.1 (1984).

Department of the Navy. Naval Medical Command. Guide for Quality Assurance Program NAVMEDCOMINST 6320.7 (6 September 1984).

Department of the Navy. Naval Regional Medical Center. Portsmouth, VA. Health Care Consumers' Council. NAVREGMEDCENINST 6000.4B (1979).

Department of the Navy. Naval Regional Medical Center. Portsmouth, VA. The Patient Contact Representative Program. NAVREGMEDCENINST 6320.39B (1982).

Department of the Navy. Tidewater Naval Regional Medical Study, Navy Contract No. N62470-83-B-6057.

U. S. Department of Defense. CHAMPUS KIT. No. 1 (1983).

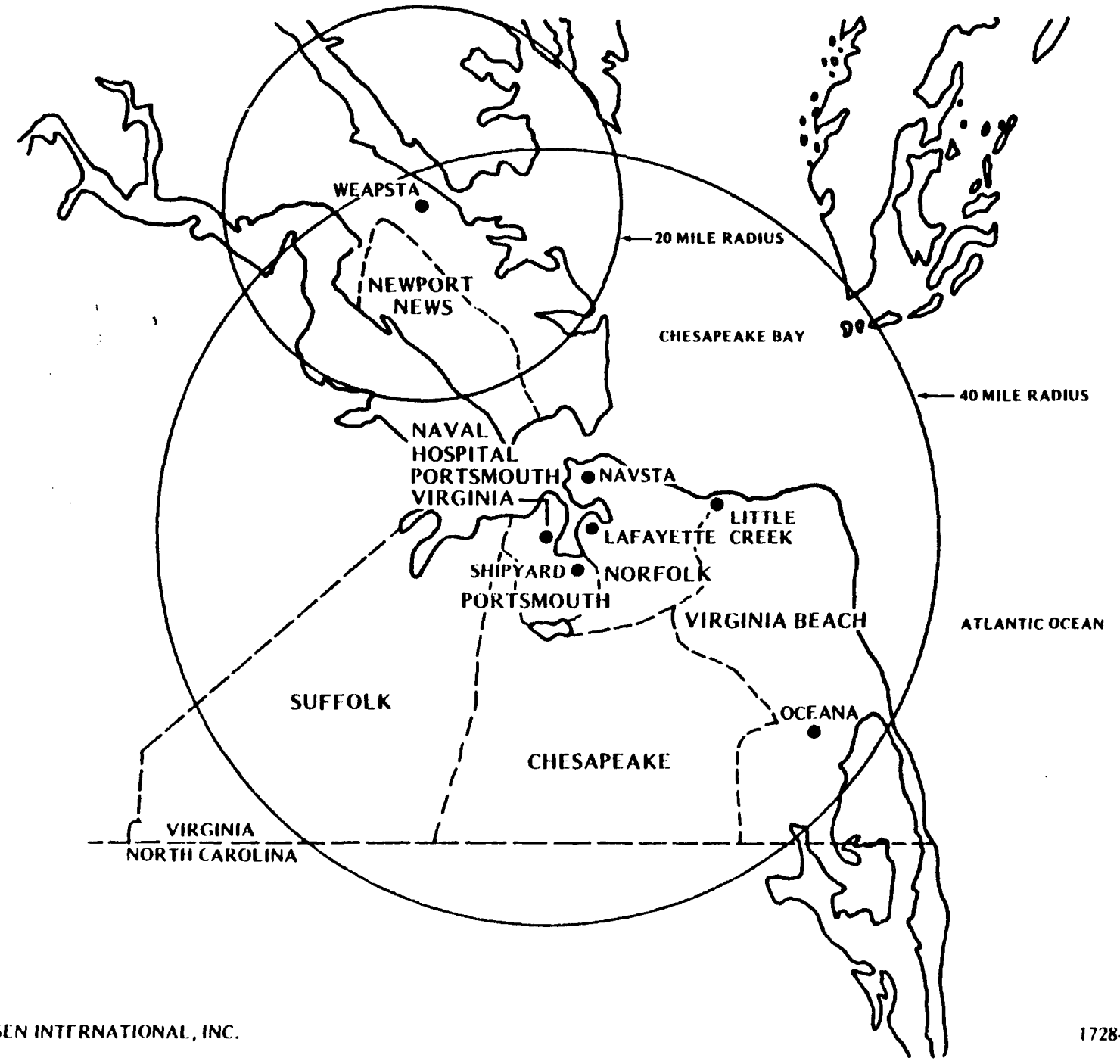
SPECIAL REPORTS

Anders, M. T., "The Measurement of Causes of Patient Satisfaction and Dissatisfaction within Clinics at an Army Medical Treatment Facility." Graduate Research Project, U. S. Army-Baylor University, 1984.

Anderson, Alden. P. "Evaluating the Impact of Consumer Satisfaction on Utilization of Health Services in the Military Health Services System." MHA thesis, University of Minnesota, 1981.

Leadford, B. A. "Report of Patient Satisfaction Survey." Portsmouth, VA: Naval Hospital Portsmouth, [March 1985].

EXHIBIT 1: TIDEWATER



FRIESEN INTERNATIONAL, INC.

1728-G-7

APPENDIX A

PATIENT SATISFACTION SURVEY - OUTPATIENT
NAVMED 6010/16 (3-81)

PATIENT SATISFACTION SURVEY – OUTPATIENT

NAVMED 6010/16 (3-81) S/N 0105-LF-[illegible]

INSTRUCTIONS:

YOUR COOPERATION IN COMPLETING THIS SURVEY WILL BE SINCERELY APPRECIATED. THE SURVEY IS DESIGNED TO ALLOW PATIENTS THE OPPORTUNITY TO PROVIDE MEANINGFUL COMMENTS FOR IMPROVING PATIENT CARE AT THIS FACILITY. IF YOUR RESPONSE IS NO, YOU ARE ENCOURAGED TO EXPLAIN IN BLOCK NUMBER 14. IF A QUESTION DOES NOT APPLY TO THE CARE OR SERVICE YOU RECEIVED, PLEASE CHECK THE BLOCK MARKED "NOT APPLICABLE." YOUR SIGNATURE IS NOT REQUIRED. IF HOWEVER, YOU DESIRE TO IDENTIFY YOURSELF, PLEASE WRITE IN YOUR NAME, ADDRESS AND TELEPHONE NUMBER. YOUR COMMENTS OR SUGGESTIONS FOR IMPROVING THIS SURVEY WOULD BE APPRECIATED AND MAY BE ENTERED IN BLOCK NUMBER 14.

1. NAME OF CLINIC

2. HAVE YOU BEEN SEEN IN THIS CLINIC BEFORE?

☐ YES ☐ NO

3. HOW LONG HAVE YOU BEEN COMING TO THIS CLINIC?

☐ LESS THAN SIX MONTHS ☐ 1 YEAR TO 5 YEARS

☐ 6 MONTHS TO 1 YEAR ☐ 5 YEARS OR MORE

4. HOW OFTEN DID YOU VISIT THIS CLINIC THIS PAST YEAR?

☐ 1 TO 5 TIMES ☐ 10 TO 25 TIMES

☐ 5 TO 10 TIMES ☐ 25 OR MORE TIMES

5. STATUS

☐ ACTIVE DUTY OFFICER
- ☐ 01 THRU 03
- ☐ 04 OR 05
- ☐ 06 AND ABOVE

☐ ACTIVE DUTY ENLISTED
- ☐ E1 THRU E3
- ☐ E4 THRU E6
- ☐ E7 AND ABOVE

☐ DEPENDENT ACTIVE DUTY OFFICER

☐ DEPENDENT ACTIVE DUTY ENLISTED

☐ RETIRED MILITARY

☐ DEPENDENT OF RETIRED

☐ OTHER (specify) – _____

6 DATE OF BIRTH	7 SEX	8 DATE SURVEY COMPLETED (MONTH/DAY/YEAR)	9 DID YOU HAVE A SCHEDULED APPOINTMENT?
	☐ MALE ☐ FEMALE		☐ YES ☐ NO IF YES, HOW LONG DID YOU HAVE TO WAIT TO BE SEEN? _____

10. CLINIC VISIT	YES	SOME WHAT	NO	NOT APPLIC ABLE
A WAS IT DIFFICULT TO GET AN APPOINTMENT IN THIS CLINIC?				
B WERE YOU GREETED COURTEOUSLY BY THE RECEPTION DESK REPRESENTATIVE?				
C WERE YOU SATISFIED WITH THE AMOUNT OF TIME YOU MUST WAIT TO BE SEEN BY YOUR DOCTOR OR THE HEALTH CARE PROVIDER WHO SAW YOU TODAY?				
D WERE YOUR MEDICAL RECORDS DIFFICULT TO LOCATE?				
E WERE YOUR MEDICAL RECORDS COMPLETE?				

11. CLINIC STAFF				
A DID A PHYSICIAN TAKE CARE OF YOU TODAY? IF NO, WAS THE STAFF MEMBER A: ☐ NURSE PRACTITIONER ☐ PHYSICIAN ASSISTANT ☐ OTHER _____				
B WAS THE PHYSICIAN OR HEALTH CARE PROVIDER WHO EXAMINED AND TREATED YOU WILLING TO LISTEN TO YOUR PROBLEM?				
C WERE YOU SATISFIED WITH THE AMOUNT OF TIME THIS PERSON SPENT WITH YOU?				
D DID THE CLINIC STAFF EXPLAIN WHAT TO EXPECT AND RESPOND TO YOUR NEEDS?				
E WERE THE FINDINGS AND PLAN OF TREATMENT EXPLAINED TO YOUR UNDERSTANDING?				
F WERE YOU SATISFIED WITH THE INSTRUCTIONS PROVIDED TO CARRY OUT NECESSARY TREATMENT WHICH YOU NEED TO DO TO GET BETTER?				

12. SUPPORT SERVICES	WAITING TIME	YES	SOME WHAT	NO	NOT APPLICABLE
A WERE YOU SATISIFIED WITH THE PROMPTNESS OF THE SERVICES PROVIDED BY (IF NO, PLEASE ENTER WAITING TIME IN THE SPACE PROVIDED AT RIGHT)					
1. CENTRAL APPOINTMENT DESK					
2. RECEPTION DESK					
3. LABORATORY					
4. X-RAY					
5. PHARMACY					
6. EKG					
7. PHYSICAL THERAPY					
8. RESPIRATORY THERAPY					
9. MEDICAL RECORDS DESK					
B WERE YOU SATISIFED WITH THE PROFESSIONAL SERVICES PROVIDED BY:					
1. CENTRAL APPOINTMENT DESK					
2. RECEPTION DESK					
3. LABORATORY					
4. X-RAY					
5. PHARMACY					
6. EKG					
7. PHYSICAL THERAPY					
8. RESPIRATORY THERAPY					
9. MEDICAL RECORDS DESK					
C WERE THE STAFF MEMBERS WHO ADMINISTERED THESE SERVICES COURTEOUS TO YOU?					
1. CENTRAL APPOINTMENT DESK					
2. RECEPTION DESK					
3. LABORATORY					
4. X-RAY					
5. PHARMACY					
6. EKG					
7. PHYSICAL THERAPY					
8. RESPIRATORY THERAPY					
9. MEDICAL RECORDS DESK					

13 MISCELLANEOUS	YES	SOME WHAT	NO	NOT APPLICABLE
A. WERE THERE DIRECTIONS AVAILABLE OR WERE YOU PROVIDED DIRECTIONS TO THE VARIOUS DEPARTMENTS? (ie, PHARMACY, X-RAY, LABORATORY, etc.)				
B. WERE THE CLINIC AREAS KEPT CLEAN AT ALL TIMES?				
C. WERE THERE ADEQUATE SEATING SPACES IN THE WAITING ROOM?				
D. WERE THE VOLUNTEERS YOU ENCOUNTERED COURTEOUS AND HELPFUL?				
E. WERE THERE AMPLE PARKING FACILITIES?				
F. WERE YOU OR MEMBERS OF YOUR FAMILY SATISFIED WITH THE CARE PROVIDED AND THE INFORMATION THEY RECEIVED CONCERNING YOUR CARE?				

14. COMMENTS AND SUGGESTIONS

☆ U.S. GPO 198- 735-001 2029 Region 3-1

APPENDIX B

MILITARY HEALTH CARE BENEFICIARY QUESTIONNAIRE

(PILOT STUDY)

MILITARY HEALTH CARE BENEFICIARY QUESTIONNAIRE
NAVY OUTPATIENT CARE AVAILABLE TO ACTIVE DUTY NAVY DEPENDENTS

1. Rank of sponsor. (Circle one letter)

[a] E1 - E4
[b] E5 - E6
[c] E7 - E9
[d] W1 - W4
[e] O1 - O3
[f] O4 - O6
[g] O7 - O10

2. Sponsor's years of service. (Circle one letter)

[a] less than 5 years
[b] 5 - 10 years
[c] 11 - 15 years
[d] 16 - 20 years
[e] over 20 years

3. Total number of dependents living within your household that are entitled to military health care. (Circle one letter)

[a] 0
[b] 1
[c] 2-3
[d] 4-6
[e] over 6

4. If you selected [a] for question #3, please STOP. Further completion of this survey is not necessary. Thank you for your cooperation. Please return the questionnaire in the enclosed postage paid envelope.

5. Distance from your residence to the nearest outpatient military health care facility where acute medical care services are available. (Note: For some beneficiaries the Hospital is the source of acute medical care services.) (Circle one letter)

[a] less than 5 miles
[b] 5-10 miles
[c] 11-15 miles
[d] 16 - 20 miles
[e] 21 - 40 miles
[f] greater than 40 miles

6. Distance from your residence to Naval Hospital Portsmouth. (Circle one letter)

[a] less than 5 miles
[b] 5-10 miles
[c] 11-15 miles
[d] 16-20 miles
[e] 21 - 40 miles
[f] greater than 40 miles

7. Beside CHAMPUS, do you have private outpatient medical health care insurance coverage for your dependent family members? (Circle one letter)

[a] yes
[b] no

(If you answered "no" to question #7, skip to question #9.)

8. What is the source of this coverage? (Circle one letter)

[a] full premium coverage is a fringe benefit from employer (not related to sponsor's military duties)
[b] separately purchased by sponsor and/or dependents
[c] partial premium coverage is a fringe benefit from employer

9. How much money did you spend in 1984 to pay for outpatient medical health care services received from civilian health practitioners? This includes insurance premiums, insurance deductibles, copayments and out of pocket expenses. (Circle one letter)

[a] less than $100
[b] $100-$250
[c] $251-$500
[d] greater than $500

10. What was your family's gross income for 1984? (Circle one letter)

[a] under $10,000
[b] $10,000 - $24,999
[c] $25,000 - $39,999
[d] $40,000 - $55,000
[e] greater than $55,000

11. Which one of the following statements best describes the use of outpatient medical health care facilities by the dependents living within your household who are eligible for military health care services? (Circle one letter)

[a] We use military sources of health care exclusively.
[b] We use both military and civilian sources of health care.
[c] We use civilian sources of health care exclusively.

12. Please indicate the total number of dependent outpatient medical health care visits for each source of care during calendar year 1984 (If you did not use any, pleease indicate with a "0") (Enter the number of visits.)

a. [ ] military facilities b. [ ] civilian facilities

13. How many of the outpatient medical health care visits to civilian facilities, identified in question #12, were due to dissatisfaction with military health care services or facilities? (Enter the number of visits.)

[ ]

14. How many of the outpatient medical health care visits to civilian facilities, identified in question #12, were due to nonavailability of needed services at military health care facilities? (Enter the number of visits.)

[ ]

15. When you use civilian sources of outpatient medical health care how do you pay for services? (Circle one letter)

[a] CHAMPUS plus deductibles and copayments
[b] Health insurance other than CHAMPUS.
[c] I pay cash.
[d] A and C
[e] B and C
[f] A, B, and C

The following questions relate to your level of satisfaction with the medical care and services provided by outpatient health practitioners in Navy medical facilities within the Tidewater area. Please note that separate responses are needed for both regional clinics and the Naval Hospital. Please answer each question by circling the letter under the column heading that best describes your level of satisfaction. Remember - answer each question from the perspective of dependent family member perceptions and utilization of Navy outpatient health care.

	Not applicable	Always	Most of the time	About 1/2 the time	Hardly ever	Never
16. Did you have any problems in receiving emergency care?						
Outlying Clinics	[a]	[b]	[c]	[d]	[e]	[f]
Hospital	[a]	[b]	[c]	[d]	[e]	[f]
17. Have you been able to get appointments for school physicals within an acceptable amount of time?						
Outlying Clinics	[a]	[b]	[c]	[d]	[e]	[f]
Hospital	[a]	[b]	[c]	[d]	[e]	[f]
18. Have you been able to get appointments at acute/primary care clinics when needed for minor illnesses within an acceptable amount of time?						
Adult (Outlying Clinics)	[a]	[b]	[c]	[d]	[e]	[f]
Pediatrics (Outlying Clinics)	[a]	[b]	[c]	[d]	[e]	[f]
Adult (Hospital)	[a]	[b]	[c]	[d]	[e]	[f]
Pediatrics (Hospital)	[a]	[b]	[c]	[d]	[e]	[f]
19. Have you been able to get follow up appointments at specialty clinics within an acceptable amount of time?						
Outlying Clinics	[a]	[b]	[c]	[d]	[e]	[f]
Hospital	[a]	[b]	[c]	[d]	[e]	[f]
20. After arriving for your appointments, do you feel that the time you waited (after your scheduled appointment time) is acceptable?						
Outlying Clinics	[a]	[b]	[c]	[d]	[e]	[f]
Hospital	[a]	[b]	[c]	[d]	[e]	[f]

	Not applicable	Always	Most of the time	About 1/2 the time	Hardly ever	Never
21. In your opinion, was the doctor/ nurse/allied health professional thorough when treating you?						
Outlying Clinics	[a]	[b]	[c]	[d]	[e]	[f]
Hospital	[a]	[b]	[c]	[d]	[e]	[f]
22. Did you feel that the people who treated you spent enough time with you?						
Outlying Clinics	[a]	[b]	[c]	[d]	[e]	[f]
Hospital	[a]	[b]	[c]	[d]	[e]	[f]
23. Did the doctor (or medical practitioner) give you enough information about your medical problem(s)?						
Outlying Clinics	[a]	[b]	[c]	[d]	[e]	[f]
Hospital	[a]	[b]	[c]	[d]	[e]	[f]
24. In your opinion, was your doctor and his/her staff interested in you as a person?						
Outlying Clinics	[a]	[b]	[c]	[d]	[e]	[f]
Hospital	[a]	[b]	[c]	[d]	[e]	[f]
25. Are you able to get in touch with a doctor when you have the need to?						
Outlying Clinics	[a]	[b]	[c]	[d]	[e]	[f]
Hospital	[a]	[b]	[c]	[d]	[e]	[f]
26. Is parking adequate at the health care facility?						
Outlying Clinics	[a]	[b]	[c]	[d]	[e]	[f]
Hospital	[a]	[b]	[c]	[d]	[e]	[f]
27. Is the distance as influenced by traffic, weather, time of day, from your home to the military health care facility satisfactory?						
Outlying Clinics	[a]	[b]	[c]	[d]	[e]	[f]
Hospital	[a]	[b]	[c]	[d]	[e]	[f]

	Not applicable	Always	Most of the time	About 1/2 the time	Hardly ever	Never
28. Unless you are under a family practice group, you probably do not have a single military physician supervising all of your medical care needs. Do you perceive this to be a problem?	[a]	[b]	[c]	[d]	[e]	[f]
29. If you do not receive all of your outpatient care from a single source (i.e., hospital or outlying clinic), do you perceive this to be a problem?	[a]	[b]	[c]	[d]	[e]	[f]
30. Are you satisfied with the skill level of the health practitioners that have treated you?						
Outlying Clinics	[a]	[b]	[c]	[d]	[e]	[f]
Hospital	[a]	[b]	[c]	[d]	[e]	[f]

31. Comments:

Thank you for filling out this survey. Please return the questionnaire in the enclosed postage paid envelope.

Dear Shipmate,

In early April I sent you a survey questionnaire asking for your feedback regarding Navy Outpatient medical care in Tidewater. My records indicate that you have not yet responded.

The results of my evaluation of Navy family perceptions of these health care services will not be taken seriously unless more people participate.

Please complete and return the survey today.

Thanks,

APPENDIX D

QUESTIONNAIRE COVER LETTER

PRE-PILOT STUDY DRAFT

February, 1985

Dear Military Health Care Beneficiary,

Have you used Navy medical treatment facilities lately for your outpatient health care needs? Are you satisfied with the convenience and quality of these services? Have you become dissatisfied with any aspect of your military health care benefits to the point of chosing to use civilian health care over military health care as a source of outpatient health needs?

Each individual has his/her own opinion on the way health care services should be rendered. Each contact with a health care provider, whether it be in person, by phone or through conversations with friends, contributes to an individual's perception of satisfaction with health care services and providers.

How does the medical community find out how well it is meeting the needs of its customers? In general, patient satisfaction is the determining factor. When dissatisfaction is introduced to the patient-provider-institution relationship, alternate sources of care are investigated and obtained as monetarily feasible by the dissatisfied consumer.

As a graduate student in Health Care Administration I believe that satisfying the medical needs of the Navy beneficiary popoulation is of paramount importance. Communication between provider and potential and actual consumers of Navy medical care must be an open, two-way process for a cooperative, professional relationship to exist. In this spirit of cooperation and professional communication I ask you to participate in this survey and complete the enclosed questionnaire. The goal of this survey is to obtain your preceptions of satisfaction with Navy outpatient medical care and services in the Tidewater Virginia area. It applies only to <u>outpatient</u> health care needs, excluding dental, of the <u>non-active duty</u> members of your family that live within your household.

The investment of your time and energy is of extreme importance to the success of this survey and is personally very much appreciated.

Very respectfully,

JOHN A. ROONEY
Lieutenant Commander
Medical Service Corps
United States Navy

APPENDIX E

QUESTIONNAIRE COVER LETTER
PILOT STUDY VERSION

February, 1985

Dear Military Health Care Beneficiary,

I am pursuing a graduate degree in Health Care Administration. As part of my degree requirements, I am studying the satisfaction of Navy personnel and their families with outpatient medical care services provided by the Naval Hospital and Naval Medical Clinics within the Tidewater area. Will you please take a few minutes to assist me in this research process.

The enclosed questionnaire consists of two parts; family demographics and beneficiary satisfaction with Navy outpatient health care services. Since active duty members are required to use military health care resources, I have designed the questionnaire to measure the satisfaction of all other members of your household who are entitled to military health care benefits. The questionnaire should be completed by the military sponsor and/or spouse or any other member of the family who assumes responsibility for the health care needs of the dependent family members.

Please answer questions #1 through #15 as accurately as possible. Questions #16 through #30 are designed to obtain your perceptions of the availability, convenience, responsiveness, consistency, competency, and comprehensiveness of Navy outpatient health care personnel, services and facilities. Whether or not you used Navy outpatient health care services during 1984, it is important to identify how you perceive the Navy outpatient health care system. Therefore, both users and non-users of locally available Navy outpatient health care services should answer all parts of each question. All responses should be based upon your honest appraisal of the Navy outpatient health care system in the Tidewater Virginia area.

Your responses will be completely anonymous. A three-digit code is included on the questionnaire only for purposes of following up on those who do not respond within fourteen days of receipt. Upon receipt of the completed questionnaire, the code number will be deleted.

I trust that you will be interested in providing the information that I am requesting. Thank you for your assistance. Your participation will provide valuable insights to the Navy Medical Department regarding your perceptions of the Navy outpatient health care system in Tidewater Virginia.

Very respectfully,

JOHN A. ROONEY
Lieutenant Commander
Medical Service Corps
United States Navy

APPENDIX F

QUESTIONNAIRE COVER LETTER
PARENT STUDY VERSION

March 1985

Dear Shipmate,

PLEASE HELP ME! I need to know how you feel about the outpatient medical care services that are available to the dependent members of your family from the local Navy Medical Department facilities. Attached is a questionnaire that gives you an opportunity to "tell it like it is."

THIS STUDY WILL NOT BE A SUCCESS UNLESS YOU AGREE TO PARTICIPATE! Please take fifteen (15) minutes of your valuable time to "voice your opinions" and contribute to this evaluation process.

The first two pages of questions ask for general family information. If you are not sure of an answer, your best estimate will be fine.

Questions on pages three, four and five are asking you to offer your perceptions of local Navy out atient medical care services. DO NOT INCLUDE DENTAL CARE. If your dependents received outpatient care at Navy health facilities during 1984, simply describe that care. If your dependents did not use Navy health facilities during 1984, describe the care that you believe they would have received (from the Navy facilities) if they had requested it.

Two definitions you need to understand inorder to complete this section are: (1) Hospital = Naval Hospital, Portsmouth, VA; and (2) Outlying Clinics = all other Navy health facilities within the Tidewater area where dependents receive medical care.

Your responses will be held strictly confidential. Do not include your name on the questionnaire.

With sincerest thanks,

J. A. Rooney

J. A. ROONEY
LCDR MSC USN

APPENDIX G

MILITARY HEALTH CARE BENEFICIARY QUESTIONNAIRE
PARENT STUDY VERSION

MILITARY HEALTH CARE BENEFICIARY QUESTIONNAIRE
NAVY OUTPATIENT CARE AVAILABLE TO ACTIVE DUTY NAVY DEPENDENTS

1. Rank of sponsor. (Circle one letter)

[a] E1 - E4
[b] E5 - E6
[c] E7 - E9
[d] W1 - W4
[e] O1 - O3
[f] O4 - O6
[g] O7 - O10

2. Sponsor's years of service. (Circle one letter)

[a] less than 5 years
[b] 5 - 10 years
[c] 11 - 15 years
[d] 16 - 20 years
[e] over 20 years

3. Total number of dependents living within your household that are entitled to military health care. (Circle one letter)

[a] 0
[b] 1
[c] 2-3
[d] 4-6
[e] over 6

4. If you selected [a] for question #3, please **STOP**. Further completion of this survey is not necessary. Thank you for your cooperation. Please return the questionnaire in the enclosed postage paid envelope.

5. What is the approximate distance from your residence to the nearest outpatient military health care facility where primary (routine) medical care services are available. (Note: For some beneficiaries the Naval Hospital is the source of primary (routine) medical care services.) (Circle one letter)

[a] less than 5 miles
[b] 5-10 miles
[c] 11-15 miles
[d] 16 - 20 miles
[e] 21 - 40 miles
[f] greater than 40 miles

6. What is the approximate distance from your residence to Naval Hospital Portsmouth. (Circle one letter)

[a] less than 5 miles
[b] 5-10 miles
[c] 11-15 miles
[d] 16-20 miles
[e] 21 - 40 miles
[f] greater than 40 miles

7. Beside CHAMPUS, do you have private outpatient medical health care insurance coverage for your dependent family members? (Circle one letter)

[a] yes
[b] no

(If you answered "no" to question #7, skip question #8 and go to question #9.)

8. What is the source of this coverage? (Circle one letter)

[a] full premium coverage is a fringe benefit from employer (not related to sponsor's military duties)
[b] separately purchased by sponsor and/or dependents
[c] partial premium coverage is a fringe benefit from employer

9. Approximately how much money did you spend in 1984 to pay for outpatient medical health care services received from civilian health practitioners? This includes insurance premiums, insurance deductibles, copayments and out of pocket expenses. (Circle one letter)

[a] less than $100
[b] $100-$250
[c] $251-$500
[d] greater than $500

10. What was your family's total income for 1984 (include all direct pay, allowances, and other income)? (Circle one letter)

[a] under $10,000
[b] $10,000 - $24,999
[c] $25,000 - $39,999
[d] $40,000 - $55,000
[e] greater than $55,000

11. Which one of the following statements best describes the use of outpatient medical health care facilities by the dependents living within your household who are eligible for military health care services? Do not include dental care. (Circle one letter)

[a] We use military sources of health care exclusively.
[b] We use both military and civilian sources of health care.
[c] We use civilian sources of health care exclusively.

12. Please estimate the total number of dependent outpatient medical health care visits for each source of care during calendar year 1984 (A response is needed in each set of brackets). If you did not use any, please indicate with a "0" (Enter the number of visits.)

a. [ ] military facilities
b. [ ] civilian facilities

13. How many of the outpatient medical health care visits to civilian facilities, identified in question #12, were due to dissatisfaction with military health care services or facilities? (Enter the number of visits.)

[ ]

14. How many of the outpatient medical health care visits to civilian facilities, identified in question #12, were due to nonavailability of needed services at military health care facilities? (Enter the number of visits.)

[ ]

NOTE: Your answers to questions 13 and 14 when added, should equal the answer you gave for question 12b. Please check to make sure that is the case.

15. When you use civilian sources of outpatient medical health care how do you pay for services? (Circle one letter)

[a] CHAMPUS plus deductibles and copayments
[b] Health insurance other than CHAMPUS.
[c] I pay cash.
[d] [a] and [c]
[e] [b] and [c]
[f] [a], [b] and [c]

The following questions relate to your level of satisfaction with the medical care and services provided by outpatient health practitioners in Navy medical facilities within the Tidewater area. Please note that separate responses are needed for both outlying clinics and the Naval Hospital. Please answer each question by circling the letter under the column heading that best describes your level of satisfaction. Remember - answer each question from the point of view of dependent family member perceptions and utilization of Navy outpatient health care. (Refer to the cover letter for definition of outlying clinics and hospital.)

	Not applicable	Always	Most of the time	About 1/2 the time	Hardly ever	Never
16. Did you have any problems in receiving emergency care?						
Outlying Clinics	[a]	[b]	[c]	[d]	[e]	[f]
Hospital	[a]	[b]	[c]	[d]	[e]	[f]
17. Have you been able to get appointments for school physicals within an acceptable amount of time?						
Outlying Clinics	[a]	[b]	[c]	[d]	[e]	[f]
Hospital	[a]	[b]	[c]	[d]	[e]	[f]
18. Have you been able to get appointments at acute/primary care clinics *when needed for minor illnesses within* an acceptable amount of time?						
Adult (Outlying Clinics)	[a]	[b]	[c]	[d]	[e]	[f]
Pediatrics (Outlying Clinics)	[a]	[b]	[c]	[d]	[e]	[f]
Adult (Hospital)	[a]	[b]	[c]	[d]	[e]	[f]
Pediatrics (Hospital)	[a]	[b]	[c]	[d]	[e]	[f]
19. Have you been able to get follow up appointments at specialty clinics within an acceptable amount of time?						
Outlying Clinics	[a]	[b]	[c]	[d]	[e]	[f]
Hospital	[a]	[b]	[c]	[d]	[e]	[f]
20. After arriving for your appointments, do you feel that the time you waited (after your scheduled appointment time) is acceptable?						
Outlying Clinics	[a]	[b]	[c]	[d]	[e]	[f]
Hospital	[a]	[b]	[c]	[d]	[e]	[f]

	Not applicable	Always	Most of the time	About 1/2 the time	Hardly ever	Never
21. In your opinion, was the doctor/ nurse/allied health professional thorough when treating you?						
Outlying Clinics	[a]	[b]	[c]	[d]	[e]	[f]
Hospital	[a]	[b]	[c]	[d]	[e]	[f]
22. Did you feel that the people who treated you spent enough time with you?						
Outlying Clinics	[a]	[b]	[c]	[d]	[e]	[f]
Hospital	[a]	[b]	[c]	[d]	[e]	[f]
23. Did the doctor (or medical practitioner) give you enough information about your medical problem(s)?						
Outlying Clinics	[a]	[b]	[c]	[d]	[e]	[f]
Hospital	[a]	[b]	[c]	[d]	[e]	[f]
24. In your opinion, was your doctor and his/her staff interested in you as a person?						
Outlying Clinics	[a]	[b]	[c]	[d]	[e]	[f]
Hospital	[a]	[b]	[c]	[d]	[e]	[f]
25. Are you able to get in touch with a doctor when you have the need to?						
Outlying Clinics	[a]	[b]	[c]	[d]	[e]	[f]
Hospital	[a]	[b]	[c]	[d]	[e]	[f]
26. Is parking adequate at the health care facility?						
Outlying Clinics	[a]	[b]	[c]	[d]	[e]	[f]
Hospital	[a]	[b]	[c]	[d]	[e]	[f]
27. Is the distance as influenced by traffic, weather, time of day, from your home to the military health care facility satisfactory?						
Outlying Clinics	[a]	[b]	[c]	[d]	[e]	[f]
Hospital	[a]	[b]	[c]	[d]	[e]	[f]

	Not applicable	Always	Most of the time	About 1/2 the time	Hardly ever	Never
28. Unless you are under a family practice group, you probably do not have a single military physician supervising all of your medical care needs. Do you perceive this to be a problem?	[a]	[b]	[c]	[d]	[e]	[f]
29. If you do not receive all of your outpatient care from a single source (i.e., hospital or outlying clinic), do you perceive this to be a problem?	[a]	[b]	[c]	[d]	[e]	[f]
30. Are you satisfied with the skill level of the health practitioners that have treated you?						
Outlying Clinics	[a]	[b]	[c]	[d]	[e]	[f]
Hospital	[a]	[b]	[c]	[d]	[e]	[f]

31. Comments:

Thank you for filling out this survey. Please return the questionnaire in the enclosed postage paid envelope.