

A STUDY OF THE USE OF THE EMERGENCY DEPARTMENT
AS A WALK-IN CLINIC FOR PEDIATRIC PATIENTS

by

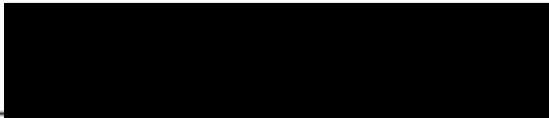
Joan F. Binkley, B.S.

A FIELD STUDY

Presented to
the University of Oregon School of Nursing and the
Graduate Council of
the University of Oregon Medical School
in partial fulfillment of
the requirements for the degree of
Master of Nursing

June 7, 1974


APPROVED:




Marie Berger, M.N., Assistant Professor
S Field Study Advisor



Julia Brown, Ph. D., Associate Professor
First Reader



Sandy Stone, M.N., Assistant Professor
S Second Reader



John M. Brookhart, Ph. D.
Chairman, Graduate Council

This study was supported by a United States Public Health Service Traineeship from Grant Numbers 3 A11 NU 00035-15, and 5 A1 NU 00035-16.

ACKNOWLEDGMENTS

Sincere appreciation is extended to Mrs. Marie Berger, as field study advisor, for her assistance and patience during the preparation of this manuscript. The writer wishes to express appreciation to Dr. Julia Brown for the helpful criticism of the study in all stages of preparation, and Miss Sandy Stone for her helpful comments.

Special thanks are extended to Dr. Joseph B. Vander Veer Jr., the nursing personnel of the University of Oregon Medical School Emergency Department and the parents who participated in this study for their cooperation without which the study would not have been possible.

A very personal thanks to a patient and understanding husband and my sons Mark and David, for their many sacrifices and moral support.

j. f. b.

TABLE OF CONTENTS

CHAPTER	Page
I. INTRODUCTION	1
Introduction to the Problem	1
Definition of the Problem	3
Setting of the Study	4
Statement of the Purpose and Related Studies	6 6
Factors Influencing the Utilization of Emergency Departments	7
Child Health Care Programs In the United States	13
Summary of the Literature and Related Studies	20
Definition of Terms	21
II. METHOD	23
Description	23
Selection of Participants	24
Sources of Data	25
Pilot Study	26
Determination of the Size of the Sample	27
Method of Analysis	27
III. FINDINGS	29
Introduction	29
Demographic Data	29
Utilization of the Emergency Room for Non-urgent Conditions	30
Reasons For Utilizing the Emergency Room in the Evenings and Weekends	33
Medical Care Utilization Patterns of the Patient's Family	38
Parents' Comments Regarding Care and Services Received in the Emergency Room and Pediatric Outpatient Clinics	45
Summary	47

	Page
IV. DISCUSSION	49
Demographic and Economic Factors	49
Diagnostic Factors	49
Medical Care Utilization Factors	51
Implications of the Study	52
V. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	55
Summary and Conclusions	55
Recommendations for Further Study	56
REFERENCES	58
APPENDICES	
A. Correspondence and Questionnaire	62
B. Summary of Data	68
C. Variables	76
D. Program Plan For Improved Services To Children	80
ABSTRACT	

LIST OF TABLES

TABLE	Page
1. Rank order of the diagnoses of 73 pediatric emergency room patients in March, 1973.	31
2. The number and per cent of urgent and non-urgent conditions of 73 pediatric emergency room patients in March, 1973.	32
3. Number and per cent of urgent and non-urgent cases of 73 pediatric emergency room patients in March, 1973.	33
4. The distribution of parents' responses concerning the reasons for bringing their children to the emergency room in March, 1973.	34
5. Number of other reasons parents gave for bringing their children to the emergency room in March, 1973.	35
6. The distribution of parents' responses to, "if there was an evening pediatric outpatient clinic."	36
7. The number of other reasons parents gave for an evening pediatric clinic.	36
8. The distribution of 73 parents' responses to the selection of a time for a pediatric outpatient clinic, first and second choices.	37
9. The total number of pediatric and total ER visits made to the UOMS during the month of March, from 1967 to 1973.	38
10. The number of 73 patients utilizing pediatric specialty clinics at the UOMS.	44

LIST OF GRAPHS

GRAPH	Page
1. Distribution of 100 pediatric visits to the emergency room by time of day in March, 1973.	41
2. The number of visits made by 73 patients' families to the emergency room in 1972.	42
3. The number of visits made by 73 patients' families to the pediatric outpatient clinic in 1972.	43

CHAPTER I

INTRODUCTION

Introduction to the Problem

Emergency departments across the United States continue to see an increasing number of patients with non-urgent conditions. (16, 27, 30) Thirty-seven per cent of these cases are pediatric problems and more than half are considered non-urgent and not in need of emergency room services. (16, 17, 18) Increased utilization of the emergency room for non-urgent need reflects in part the shortage of physicians, tightly scheduled office hours, and the inaccessibility of private physician services in the evenings and on weekends. (2)

Fifty-eight pediatric clinics, called projects, were funded under the Children's Bureau Act of 1965 based upon the increasing demands for emergency department services by the parents of pediatric patients. These projects presented a wide variety of patterns for delivering health care to the children and their parents. (3) However, these pediatric clinics provided only a small proportion of the total care given the patient and again were limited to daytime hours. (1, 3, 12, 14, 19, 25)

In 1969 the Conference on Health Services for Children and Youth, sponsored by the American Public Health Association, and the Council on Pediatric Practice of the American Academy of Pediatrics both recommended that: (1) patterns of care which have proved effective be expanded and (2) around-the clock comprehensive care be provided to all persons. It was further suggested that whatever pattern is developed, the clinic should include and integrate both preventive and curative care. (4, 8) To date, there are no twenty-four hour pediatric clinics which provide the comprehensive care mentioned above.

In the Portland Metropolitan area, six pediatric clinics have been in operation since 1965. They were originally designed to serve the lower socio-economic segments of the population and are located in areas where families' annual income averages less than \$6,000. These clinics include: the Multiservice Center and the Columbia Villa clinics operating under the auspices of the Multnomah County Public Health Department, the Gresham Clinic sponsored by the Cascade Health Care Plan, the hospital-based Maternal and Infant Clinic at Emanuel Hospital, the OEO Neighborhood Center Clinic at the Kaiser Foundation Hospital, and the Pediatric Outpatient Clinic at the University of Oregon Medical School. All of these clinics provide limited services, functioning as screening and referral centers for other medical facilities.

In the past it has been the pattern to move clinics nearer to the population to be served, while still relying upon the emergency departments to provide service after clinic hours. Although the number of pediatric clinics, serving mainly the low income families, have increased, the emergency departments continue to see large numbers of pediatric patients for non-emergency conditions.

The public is demanding a medical center or clinic where anyone may apply, with any kind of complaint, at any hour of the day or night, and receive prompt and courteous service. (18) Other facilities, such as department stores and food markets, are open in the evenings and on weekends for the convenience of the buyers. The public desires medical services to be accessible and convenient in the same way.

Definition of the Problem

Increasing numbers of parents are bringing their children to the emergency units of hospitals with non-urgent conditions. There is evidence to support the need for a triage nurse to screen and refer the patients to the appropriate clinics. (7) The function of the triage nurse is to perform the tasks of taking a medical history and to make a physical and psychological assessment of the patient. At the present time the medical receptionist decides whether or not the ambulatory patients are in need of immediate medical attention.

During the daytime hours the seemingly non-emergency patients are sent to the pediatric clinic whenever possible. Some families have utilized this means of obtaining medical care in order to gain access to the pediatric clinic that day without the necessity of a prior appointment. In the evenings and on weekends when the clinics are closed the non-emergency patient is asked to wait a longer period of time while the more seriously ill patient is being cared for by the medical team. This investigator does not propose to study the role of a triage nurse but rather the reasons why the parents utilize the present facility for non-urgent conditions despite the present policy of the emergency department to serve emergencies only. The investigator will discuss whether utilizing the emergency facility in its present physical structure as an extension of the pediatric clinic is feasible if the policy of providing service changes.

Setting of the Study

This study was conducted in the emergency room of the University of Oregon Medical School Hospital. The interns and resident physicians of this teaching hospital share the responsibilities of the emergency room on a rotating basis. Staff physicians are contacted when consultations are needed to confirm a diagnosis. Pediatric patients are seen by the physicians who are currently assigned to the

pediatric rotation. These physicians also cover the other pediatric outpatient clinics.

Essentially the front half of the emergency room is utilized for patients who are not critically ill and therefore this area could be utilized as a "walk-in" clinic for pediatric, obstetric and medical cases. In this manner more effective utilization of both physician and nurse skills could be achieved. Highly trained triage or nurse practitioners could assign patients for clinic appointments at a later date or other medical facilities when the patients' assessed condition did not warrant immediate medical care. The emergency room staff could be divided into two teams, one team to serve the non-emergency patients after clinic hours and the other team to function in the critical care area on a rotating basis.

Much of the population, especially low income groups, presently depends upon the emergency clinic for general medical needs for all members of the family. (30) If the emergency clinic is to function as a walk-in clinic it cannot provide care oriented on a crisis basis alone and should provide the necessary components for the patient's total care. Although it is recognized that the findings of this study are in no way to be considered conclusive, or to be generalized, it is hoped that the findings will lend some insight into the family's needs in the way of pediatric outpatient or expanded pediatric emergency clinics.

Statement of the Purpose

The purpose of this study is to examine some reasons why the University of Oregon Medical School Hospital Emergency Clinic is utilized as a pediatric "walk-in" clinic in the evenings and on weekends for non-emergency services; and furthermore, to identify, by determining the families' health care utilization patterns, whether a need exists either to extend the pediatric clinic hours or to utilize the emergency department as "walk-in" pediatric clinic after clinic hours.

Review of the Literature and Related Studies

Introduction

The review of the literature was limited to those studies which focused on (1) the factors which influence parents to utilize the emergency departments in the evenings and weekends for non-emergency services for their children, and (2) the relationship of child health care programs, recently established to fulfill the demands for increased child health services, to the extent of reducing the utilization of emergency departments for non-emergencies. This review was confined to the period from 1965 to February 1973.

Factors Influencing the Utilization of Emergency Departments

The factors such as, the lack of medical facilities in the evenings and weekends and socio-economic and ethnic factors, which affect the utilization of emergency clinics throughout the United States will be discussed in this section.

The overall demand for emergency services continues to increase more rapidly than hospital admissions, scheduled clinic visits, or population growth. (16, 27, 30) The number of visits to the Children's Medical Center in Boston increased from 45,000 per year to 50,000 per year between 1957 and 1967. (13) In 1968, about 210,000 emergency visits were made to nine hospitals in the Rochester, New York area. This constituted an increase of 95 per cent over the decade from 1960 to 1970 while during the same period the population in the area increased only 20 per cent. (16) This is just a sampling of the statistics regarding the overwhelming increase in numbers of emergency visits. (These statistics refer to total visits.) The numbers of visits by children and by adults are rarely compared and hence it is impossible to state unequivocally that the same trends to increased utilization of emergency clinics holds for both categories. It is our assumption that the trend does hold for children as well as for adults.

Even though emergency clinic visits have substantially increased, studies have shown that over 50 per cent of the cases seen are non-emergencies. The emergency room of the urban hospital has developed into a major source of general medical care, despite the fact that other facilities are available for the delivery of health services to non-urgent patients. (17) Heagarty (13), Jacobs (16), and Kahn (17), stated that more than 50 per cent of the patients were considered non-urgent and not in need of an emergency room. Weirnerman (27), and Wingert (30) stated that as high as 75 per cent of the cases seen at the Pediatric Ambulatory Services, Los Angeles County- University of Southern California Medical Center, were for non-urgent conditions. Another factor which could affect the high percentage of urgent versus non-urgent conditions seen in the emergency clinics is the wide range of emergency department policies regarding urgent versus non-urgent cases which they will handle. Solon (24), found one hospital in Pennsylvania which treats only urgent cases, firmly rejecting non-urgent ones. Some hospitals discourage non-urgent cases while others are receptive to non-urgent cases and are heavily used for that purpose. (24)

In order to further discuss what is meant by non-urgent and urgent conditions, let us examine the approach of two classification systems. One of the most common disease classification systems in use today is the International Classification of Diseases, Adapted

(ICDA) which was developed, as were many others, primarily for the reporting of mortality statistics. Another classification system was developed by the Health Services Research Center of the Kaiser Foundation Hospitals in Portland, Oregon, for the express purpose of analyzing medical care utilization by investigating the relationships among background characteristics of patient populations, disease patterns and medical care utilization. (15) Hurtado and Greenlick (15) based the classification system on the assertion that different sets of background characteristics are significant determinants of medical care utilization in different disease situations. However, they found that this classification system was inadequate to establish this objective. The disease entity alone does not determine which medical services are utilized, nor does it determine whether or not the illness is urgent or non-urgent, apparent chronicity and acuteness is the most frequently chosen designations to differentiate between the two categories. (16)

Similarities in illnesses can be seen in both pediatric outpatient clinics as well as pediatric emergency departments. For example, the most common types of illnesses seen at the University of Oregon Medical School Pediatric Outpatient Clinic were: undifferentiated upper respiratory infections, gastrointestinal disturbances, allergies, follow-up of accident treatment, emotional-behavior disorders, and communicable diseases. (21) The character of

illnesses which constituted 70 per cent of all emergency room visits in the Pediatric Ambulatory Department of the Los Angeles County-University of Southern California Medical Center from June 14 through September 8, 1965 were: undifferentiated upper respiratory infections, tonsillitis, otitis media and sinusitis, pneumonia, gastroenteritis, asthma, appendicitis, and trauma. (31) With the exception of severe trauma the prevalence of the same diseases, urgent and non-urgent, acute and chronic are found to co-exist in the full range of medical care services, including professional visits in the clinics, home, emergency room, or other hospital services. What variables do then influence the utilization of the emergency department since the type of illness does not appear to be the determining factor?

Socio-economic and ethnic factors appear to have a bearing upon the utilization of the emergency clinics. (10, 11, 28, 31) Comparisons were made by Weiss (11) and Greenlick (28) between the middle-class and working-class poor as to the modes of entry into a medical care system, which showed that the major pattern for the middle-class families was to utilize the telephone to obtain medical information whenever possible, rather than schedule an appointment. Working class families, on the other hand, tended to utilize the emergency room rather than initiate contact by other means, such as making an appointment or discussing the nature of the illness over the telephone. Greenlick felt that the working-class poor were unable

to verbalize their medical needs adequately and therefore they dealt with the illnesses on a crisis basis and also made twice as many visits to the emergency room as the middle-class families. (11)

Solon (24) surveyed two hospitals' emergency clinic patients to determine if the two populations differed in the utilization of the emergency room. Fourteen per cent of the urban low income families compared to 7 per cent of the suburban middle income families made use of the emergency unit as part of their regular medical care pattern.

Heagarty also identified families using the emergency room as coming more often from low income or disadvantaged families. (13) Wingert designed a study to determine whether single or two-parent low income families utilized the emergency department services more. The study showed no difference between the two types of family groups. (31) By contrast, Kahn's study revealed that women who headed families tended to use the emergency room for regular care more than families with two parents. (17) It has been assumed in the past that low-income families whether single or two-parent, tended to delay in reporting symptoms; however, there is little evidence to support this assumption. The Pediatric Ambulatory Department of the Los Angeles County-University of Southern California Medical Center's study revealed that one parent and/or socio-economically disadvantaged families apparently do not delay in seeking care for their sick children. (31) Greenlick et al. (11) at

the Kaiser Foundation Hospital, compiled data which showed that the OEO population was somewhat quicker in reporting symptoms of illnesses than was the general membership group. Although socio-economic or ethnic origin did not seem to influence the appropriateness of the visit, minority and one-parent families were more likely to be referred to a specialty clinic for continuity of care. (17, 31)

Research regarding the psychosocial behavior of the parents who brought their children to the emergency departments was reported by Solky (23) who found that parents used the child with a relatively trivial complaint to indicate a need for their own, possibly more urgent, emotional difficulties. The families were more often from the low-income and disadvantaged class.

Aside from the socio-economic and ethnic factors which affect the utilization of the emergency departments, there was the need to explore the reasons why the parents brought their children to the emergency clinics in the evenings and on weekends. The most frequent reason the parents gave for utilizing the emergency clinic in the evenings and on weekends was the belief that the child's condition was becoming worse. This rationale was used by the parents regardless of their income level or backgrounds. (17) Other reasons given for heavy nighttime utilization of the emergency room were: the lack of readily available funds; the lack of daytime transportation; and lack of physicians in economically depressed and overcrowded urban areas, (17, 31)

The number of visits by time of day may give some evidence supporting the hypothesis that patients use the hospital emergency department when most physicians' offices are closed. In the nine emergency departments in Monroe County, Rochester, New York, the peak hours for admission are 10AM, 5PM, and 7PM. The busiest hour is 7PM, and 6AM is the slowest. Monday, Thursday (the day most physicians' offices are closed) and Saturday are the days on which emergency department visits most frequently occur. (16) At the St. Louis Children's Hospital 62 per cent of the visits were made between 4:00PM and 11:59PM, and more visits were made on Saturdays and Sundays than on weekdays. (17) In summary, the main reasons for bringing children to the emergency room in the evenings and on weekends irrespective of socio-economic status, are because the parents feel that the child's condition has become worse and the evenings and weekends, for various reasons, are more convenient times to attend a clinic.

Child Health Care Programs in the United States

In busy outpatient clinics (hospital and community) and emergency rooms there are patients with several different types of needs. Some patients come for specialty consultations, some for management of chronic diseases but not general care, others for an acute illness while they receive general care elsewhere, and some for complete

care. Those patients who look to the hospital emergency departments for all their care may not have received the necessary preventative measures needed for good health care. (1) This fragmented non-comprehensive care of non-urgent, minor illness is costly both to the consumer and the administrator of these services. Rarely is the cost of maintaining the emergency room met by fees paid by the patients. For example, Weinerman (27) reported a yearly deficit of \$500,000 at the Yale-New Haven Hospital. To help offset the cost the Pediatric Ambulatory Services of Los Angeles County (30) charges \$33.00, three times the charge for a visit to a private physician's office. In studying some comparative costs in comprehensive versus fragmented pediatric care, Heagarty (13) found that the physician in the emergency clinic ordered more laboratory procedures than deemed absolutely necessary for high quality medicine. The cost factors involved in the utilization of emergency services for non-emergencies clearly point out the need to provide other means of pediatric health care. The pediatric clinics should provide complete care or comprehensive care rather than fragmented services, if the number of visits to the emergency departments for non-emergencies are to be decreased substantially.

There are distinct differences in comprehensive health-care programs established under the auspices of the medical schools or teaching hospitals and the local health departments. The programs

of the medical school or teaching hospital program may be: (a) easier and quicker to plan and implement; (b) able to offer a higher quality of medical care; (c) quicker in referring patients who require more extensive workup or hospitalization; (d) more likely to be used for teaching medical students, house staff, and other student groups; and (e) more likely to conduct research. On the other hand the health department program is more likely to: (a) involve several types of community agencies, including more than one medical school and hospital, in coordinating the program; (b) integrate existing health services, such as other community health clinics, welfare and health education into the program; and (c) improve case finding and follow-up of the children in the community in need of health services.

(21)

Frequently, the pediatric clinics have been established to provide services to the lower socio-economic families in the hospital pediatric outpatient clinics as well as the community clinics. There need not be separate programs for the poor and the affluent but there is a need to integrate the programs and persuade public acceptance and utilization of the clinics. For example, in the Portland Metropolitan area, both an OEO population and a health plan membership utilize the same facilities and in so doing reap the benefits of continuous comprehensive medical care both in the office, in the hospital and in the community. (18) The Gresham Clinic, originally

established under the auspices of the Multnomah County Health Department, is a private community clinic open to all who join the Cascade Health Plan. This clinic provides comprehensive pediatric health care to all income groups on the ability-to-pay basis.

At the Presbyterian-University of Pennsylvania Medical Center preventive treatment is encouraged by clinic personnel. The facility was constructed as a result of a study demonstrating the overutilization of the emergency clinic for non-emergency cases, and the lack of adequate facilities to expand existing clinics. In addition to direct patient care, provision is made for parent education classes and child care is provided in the facility while parents attend classes. Referrals are also made under a contract with the school district to the pediatric clinic. Appointment schedules for the pediatric clinic have been eliminated. Parents can bring both sick and well children to the clinic anytime of the day. Weekends and nights are covered by the pediatric emergency section located in the same area as the daytime clinic. (32)

According to Wallace (26) not all care needs to be provided at the same location. A hospital emergency room can be used to provide coverage during the night hours and provisions could be made for a pediatrician and social worker from the comprehensive care program to work in the emergency clinic and report back to the family's own team in the comprehensive care program.

Other attempts have been made to provide hospital-based comprehensive care. Of the four programs studied by Goodrich (9) in New York City, the only one functioning at the present time is located at the Beth Israel Hospital. Mount Sinai's reorganization plan called for the general medical and pediatric clinic to be structured into a Family Practice Unit. The clinic and emergency room care were to be integrated into this unit. Variations of this plan were followed at St. Vincent's Hospital, New York Hospital, and Beth Israel Hospital in New York City. Some of the common difficulties were: (1) severe limitation of space; (2) problems in obtaining medical charts; (3) delays in filing laboratory, x-ray and other reports; (4) delays in processing patients through registration, cashier, and pharmacy areas; and (5) too much effort required to follow hospitalized patients to make sure they were returned to the right clinics after discharge. (9) As stated earlier, community pediatric clinics funded under the Children's Bureau Act of 1965 and privately operated clinics still rely upon the hospital emergency departments to serve patients after clinic hours. Most of these clinics are neighborhood health centers located in low-income areas. Each one was and is to a large degree molded by the characteristics, resources, and needs of the community it served or serves and to some extent by the special interests and proclivities of its operating agency, its director, and its staff members. Some programs devoted a great deal of effort

in case finding, others set up special clinics for adolescents and still others concentrated on serving children under six years of age (the variations are limitless). (3, 6) The Bunker Hill Health Center, initiated by the Massachusetts General Hospital is an example of a neighborhood health clinic, which has been successful in reaching families of children who previously had to rely upon emergency services for medical care during acute episodes of illnesses. It provides comprehensive health care and like the Presbyterian-University of Pennsylvania Medical Center is under contract with the school district to receive referrals to its program. (19)

In 1968, the University of Rochester, New York, opened a Neighborhood Health Center to provide comprehensive care to residents of a defined poverty area in Rochester. Over a twenty-one months period, Hochheiser (14) studied the effect of the Neighborhood Health Center on the use of the Rochester pediatric emergency departments. It was determined that there was a 38 per cent reduction in pediatric visits to the emergency room in the Health Center area while in contrast there was no change in the number of pediatric visits from the rest of the city and a 29 per cent increase in emergency department visits by suburban children. Since the Health Center is closed after 9:30PM on weekdays and after 12:30PM on Saturdays, increased emergency department visits at night and on weekends by children who regularly used the Center should have

occurred. However, since there wasn't any such increase Hochheiser felt that either the answering service method of reaching Center physicians on call was effective or that the security of knowing assistance was available precluded a visit to the emergency department. Injuries of only a minor degree were treated in the Health Center, therefore, a smaller reduction in the number of emergency department visits for injury was to be expected. The goals of the Health Center were to reduce barriers to comprehensive care and to reverse the general trend of rising emergency department use. Simply providing quality care is not enough according to Hochheiser, it must be associated with aggressive outreach into the community and continuing consideration of cultural factors as it takes time to change entrenched patterns of health care.

Alpert (1) reported that families receiving comprehensive care were hospitalized less often, had fewer operations, and more physician visits for illness, as compared with the families who received care from more than one source.

According to several studies (3, 4, 6, 8, 12, 19, 20, 26, 29) an optimal health services system should consider the following characteristics: (1) the services should be readily available with travel time less than thirty minutes, (2) services should be available twenty-four hours a day, (3) the system needs to be responsive so that care to the patient can be carried out expeditiously, (4) the

system should be concerned with patients who need care and don't seek it as it is with those who do seek care, and (5) the system should be as concerned with those who break appointments or who fail to comply as it is with patients who make excessive demands for services. The system should be oriented to the needs of the community it serves.

Summary of the Reviewed Literature and Related Studies

Emergency room visits across the United States have increased significantly and more rapidly than the population. The number of visits continues to increase in spite of the number of pediatric clinics recently established throughout many communities. Over half of the patients are seen in the emergency clinics for non-urgent conditions, as defined by medical personnel. Parents apparently perceive the urgency of the condition differently.

The socio-economic status of the family appears to have a bearing upon the utilization of the emergency departments. The lower the income of the family the more frequent the visits are to the emergency room. It is suggested that the reason for this higher utilization among the low-income families is the tendency to use the emergency room as a walk-in clinic during acute episodes of chronic illnesses since the emergency clinic is a regular source of medical care for these families.

The peak hours of utilization in the emergency room, for all social classes, are in the evening and on weekends. The hours of utilization correlated with the inaccessibility to physicians' offices during this time, even though the reason most often specified is that the child's condition has become worse. Only one clinic cited in the literature review provides child health services in the evening hours and a few provide services on Saturdays.

When the emergency room is utilized by the family as the primary source of general health care, comprehensive care including preventive measures are not provided. Emergency services are more costly than clinics since laboratory and x-rays are often repeated because patients' records are not readily available. Taking into account all of these factors the need for accessible medical facilities twenty-four hours a day seven days a week becomes clearly apparent.

Definitions

Comprehensive Care: Complete health care to an individual, including preventative, curative, in both chronic and acute conditions. (syn. total care)

Emergency Department: A hospital-based facility operating twenty-four hours a day, with physicians in attendance during this entire time. The facility provides immediate care for ambulatory

as well as the critically ill and injured patient. (syn. emergency clinic, or emergency room)

Non-urgent: Illnesses which are chronic and/or are non-life threatening. (syn. non-emergency)

Parent: Any person responsible for the care of the child being brought to emergency room at the time of the visit. (usually the child's mother or father)

Pediatric Outpatient Department: A hospital-based facility which serves ambulatory pediatric patients on a limited daytime basis. (syn. pediatric outpatient clinic)

Primary Care: The main source of health care for a family.

Urgent: Illnesses which are acute and/or life-threatening, and demand immediate medical attention. (syn. emergency)

CHAPTER II

METHOD

Description

This study was initiated by a proposed plan titled, "Program Plan For Improved Services To Children Of Oregon And Adjacent Regions Through Changes In Ambulatory Care." The major goal of the proposed plan was, "to create evening and Saturday pediatric clinics with appropriate staff at the University of Oregon Medical School," a copy of the proposed plan can be found in Appendix B. The data collection tool was a questionnaire, devised by a member of the pediatric department at the University of Oregon Medical School, modified by the author, and adapted for use in this study. The study was designed to assess the total number of pediatric patients visiting the emergency clinic, number of pediatric patients who were true emergencies versus those who could be handled in a pediatric outpatient clinic, and the reasons given for utilizing the emergency clinic.

The literature was searched to obtain information concerning the utilization of patterns of pediatric patients in the emergency room

for non-emergencies and information regarding existing programs in pediatric ambulatory care.

Permission to administer a questionnaire to parents of the pediatric patients was obtained from the Director of Nursing Service and the Director of the Emergency Department. The investigator met with the head nurse and staff to explain the study and answer any questions needed to clarify difficulties which might be encountered.

The patients were selected (see section on Selection of Participants) as they entered the examination rooms of the Emergency Department. Their parents were interviewed and asked to voluntarily fill out the questionnaire. The nature and scope of the study was explained to the parents, anonymity was assured, and all agreed to participate.

Selection of Participants

The participants in this study were 73 parents of pediatric patients who were visiting the University of Oregon Medical School Hospital Emergency Clinic during the month of March 1973. The criteria for the selection included, (1) that the childrens' ages were from birth to thirteen years and (2) that the Medical students' families be excluded since their mode of entry into the emergency clinic and utilization differed from the selected patient population.

Sources of Data

The major source of data for this study were responses to a questionnaire (see Appendix A). Items in the questionnaire were devised to tap dimensions and factors shown by previous studies to affect a family's utilization pattern of the emergency department. These included demographic variables, age and sex, ages of the other children in the family, and the total family composition; socio-economic variables, present level of income, health insurance, medical costs and other expenses; diagnostic variables, illnesses as perceived by the parent, and the physician's diagnosis; and the medical care utilization variables, reasons for utilizing the emergency clinic and other sources of medical care utilized by the family.

In addition to the data generated by the questionnaire, other information was gathered from the chart (see Appendix A) and the emergency room admission card. This information included the patient's address, parent's name or person caring for the child, unit number, birth date, sex, diagnosis, date of the visit, and the time of the visit.

Further sources of data included the total number of visits made to the emergency room in the past seven years (pediatric and adult), obtained from the University of Oregon Medical School Hospital's Administrative Office; and data compiled from the 100

cards drawn from the card files concerning the time of day variable.

Pilot Study

The questionnaire was administered to ten parents of pediatric patients in the University of Oregon Medical School Emergency Department. The purposes of the pilot study were to determine; (1) the clarity of the instructions and the questions (2) the feasibility of utilizing the tool in the emergency room setting, (3) the length of time required to answer the questionnaire, and (4) the approximate number of patients seen each day in order to provide an estimate of the length of time necessary to conduct the study.

As a result of the pilot study the following two items were deleted from the questionnaire: (1) information regarding the past medical diagnosis of the grandparents; and (2) the care received in the emergency room. The pilot study revealed that the subjects required ten minutes to answer the questionnaire. It was further determined that an average of ten pediatric patients were seen every evening, and two weeks were estimated to be sufficient time to interview 50 subjects.

The data received in the pilot study were not incorporated in the final study. The responses received from the parents during the pilot study were considered feasible for the purposes of this study.

Determination of the Size of the Sample

By the end of two weeks 34 participants had been interviewed but since this sample was smaller than anticipated, an additional 100 subjects who had visited the emergency room in March, 1973, were selected from the card files in the credit office. Questionnaires were then mailed to these subjects. Over a period of two weeks 39 were returned all of which were usable.

The final sample consisted of 73 subjects or one fourth of the average number of pediatric patients seen every month in the University of Oregon Medical School Emergency Clinic.

Method of Analysis

On the basis of the data obtained from the questionnaire 28 variables were coded (see Appendix C). The diagnostic variables were coded according to the diagnosis and categorized as urgent or non-urgent depending upon whether or not the patient's condition warranted immediate attention or could have waited until the next day. For example, without exception all conditions diagnosed as upper respiratory infections were considered by the investigator and the physician as non-urgent. Conditions which were minor in nature but which did not need immediate use of hospital facilities, such as, a sprained ankle, or various types of small cuts or bruises

were also judged to be non-urgent by the investigator and the emergency room physician. Whereas, conditions such as, head injuries, all accidents, even if no injury is found later, and acute abdominal pains, all of which require hospital facilities were considered to be urgent. This classification system was utilized throughout the total sample to determine whether or not the condition was urgent or non-urgent.

The sample selected for the number of visits to the emergency room by the time of day was limited to the 100 patients drawn from the card files, since those interviewed in the emergency room setting were in attendance only during evening hours and weekends. The graph was drawn from this sample which differs from the 73 pediatric patients whose parents responded to the questionnaire, and is representative of visits made to the emergency department during all hours of the day.

The medical care utilization variables refer to the patient's family and the number of visits the family as a unit made during the previous year (1972) to the emergency room and the pediatric out-patient clinics.

CHAPTER III

FINDINGS

Introduction

The data were arranged into five major units: (1) demographic information, (2) utilization of the emergency department for non-urgent conditions, (3) reasons for utilizing the emergency clinic in the evenings and on weekends, (4) utilization patterns of the patient's family, and (5) parents' comments regarding the care and services received in the emergency room and pediatric outpatient clinics.

Demographic Data

Fifty-eight per cent of the patients were under five years of age. The mean age was six and over half were male. The average number of children in the families were three. Most of the families were young since only 23 per cent had children over thirteen years of age, indicating that 77 per cent of the families could utilize and benefit from a pediatric outpatient clinic or an expanded emergency clinic.

Seventy-four per cent of the families' annual income was below \$5,999, in comparison with the mean income of \$10,138 for Multnomah County. Thirty-three per cent of the families in this study had one parent and 23 per cent received welfare which provided for some medical coverage. Fifty-eight per cent of the families had no health insurance and were billed directly for the cost of the visit to the emergency room. According to the credit office files many of these bills were never paid. The families in this study were geographically located within a radius of twenty miles although 22 of the families traveled greater distances to receive medical care in the emergency clinic.

Utilization of the Emergency Room for Non-urgent Conditions

Table 1 shows the rank order of the diagnosed illnesses of the patients utilizing the emergency room in March, 1973.

Fifty-seven per cent of the patients were examined and received treatment commonly performed in physician offices, such as upper respiratory infections URI, minor injuries, dermatitis, communicable diseases, and other chronic non-acute diseases or no diagnosis. True emergencies, such as severe injuries and poison ingestion, represented only 4 per cent of the cases. Conditions, such as appendicitis, renal problems, asthma, otitis media, croup, and meningitis, even though some were not serious in nature needed to

Table 1. Rank order of the diagnoses of 73 pediatric emergency room patients in March, 1973.

Rank	Diagnosis	N	%
1	Upper Respiratory Infections	23	31.5
2	Otitis Media	10	13.7
3	Admitted - meningitis, misc. diagnosis	6	8.2
4	Croup	6	8.2
5	Chronic non-acute diseases	5	6.8
6	Healthy Child - no diagnosis	5	6.8
7	Injury - minor	4	5.5
8	Dermatitis - mild	3	4.1
9	Injury - moderate - severe	2	2.7
10	Asthma - acute	2	2.7
11	Communicable Diseases	2	2.7
12	Appendicitis	2	2.7
13	Renal - genitourinary tract	2	2.7
14	Poison ingestion	1	1.4
	Total	73	100.0

be seen immediately by a physician and required the facilities which are present only in a hospital. (39 per cent)

For classification Table 2 was constructed to show the per cent of urgent vs non-urgent as determined by the investigator (see Method of Analysis Page 27).

Table 2. The number and per cent of urgent and non-urgent conditions of 73 pediatric emergency room patients in March, 1973.

Condition	N	%
Non-urgent	42	57.4
Urgent	<u>31</u>	<u>42.6</u>
Total	73	100.0

Factors such as services rendered and the treatment performed were also considered in judging the patient's condition as urgent or non-urgent. Fifty-seven per cent were found to be non-urgent. This category included patients with such complaints as a cold for a few days, a diaper rash, or a request for renewal of a prescription.

Further indications of the seriousness of the medical condition might be obtained from the patient's disposition after treatment. Even though other factors influence the physician's decision to refer a patient for follow-up treatment, it was assumed that a greater number of referrals would be made in those cases classified as

"acute" or "urgent". Table 3 shows the distribution of the urgent and non-urgent conditions which were referred for follow-up.

Table 3. Number and per cent of urgent and non-urgent cases of 73 pediatric emergency room patients in March, 1973.

	Total Cases	Followed Up		Not Followed Up	
		Number	Per cent	Number	Per cent
Non-urgent	42	14	33.0	28	67.0
Urgent	<u>31</u>	<u>24</u>	<u>77.0</u>	<u>7</u>	<u>23.0</u>
Total	73	38	100.0	35	100.0

Seventy-seven per cent of the patients who were classified as having urgent conditions as compared to 33 per cent of the patients with non-urgent conditions were referred for follow-up treatment from the emergency room and of those cases which did not receive follow-up treatment, 23 per cent of the patients who were classified as having urgent conditions as compared to 67 per cent of the patients with non-urgent conditions were referred. Therefore, over twice as many urgent cases received follow-up treatment which would support the assumption that a greater number of urgent cases required follow-up.

Reasons for Utilizing the ER in the Evening and Weekends

Why do parents utilize the emergency room rather than the out-patient clinic or private physician's office, since most of the cases

are for non-urgent conditions? One parent in this study very aptly stated, "small children get sick and it's hard to tell how sick they are, and this makes parents uneasy to have to wait until the next morning." Table 4 denotes the reasons why the parents brought the child to the emergency room.

Table 4. The distribution of parents' responses concerning the reasons for bringing their children to the emergency room in March, 1973.

Reasons For Bringing the Child	N
because of an injury	12
had been sick for a few days	29
because of the flu or a cold	14
because I was unable to get an appointment	11
because the family doctor could not see the child	5

Forty-three of the parents brought their children to the emergency room with complaints such as, the child has been sick for a few days or he has the symptoms of the flu or a cold, even though these symptoms are frequently treated in physicians' offices. Table 5 lists the number of responses the parents made in regard to bringing their children to the emergency room.

Table 5. Number of other reasons parents gave for bringing their children to the emergency room in March, 1973.

Other Reasons for Bringing Their Children	N
No transportation in the daytime	3
Work in the daytime	2
Referred by another doctor	3
Telephoned - told to come in	4
No family doctor	1
Missed A. M. appointment	1

In addition to the reasons listed in Table 5, parents gave medical reasons such as; severe headache, bleeding nasal, earache, possible hernia, iron pill ingestion, vomiting, possible appendicitis, temperature of 104^o, pain accompanied by a cough, diaper rash, reoccurring asthma, and medicine for an extended cold. These symptoms and problems were perceived by the parents as emergencies. Of these only one case (iron pill ingestion), needed hospital facilities, and if the patients with possible hernia and appendicitis had been positively diagnosed they too would have needed hospital facilities. The other problems could have been handled in a physician's office.

The total list of other reasons can be found in Appendix B. Tables 6 and 7 show some of the reasons the parents felt expressed

their needs for an evening pediatric clinic.

Table 6. The distribution of parents' responses to, "if there was an evening pediatric outpatient clinic. "

If There Was An Evening Pediatric Clinic	N
both parents could come	23
there would be less parking problems	41
neither parent would miss work	31
the child would not miss school	28

Table 7. The number of other reasons parents gave for an evening pediatric clinic.

Other Reasons For An Evening Pediatric Clinic	N
Wouldn't have to bring to emergency	5
More time to come to clinic	5
Doctor could see child later when sick	3
Babysitters available in evenings	3
Work days	1
No transportation days	1
Less waiting time	3
More convenient	3
Better transportation	2

The total list of other reasons can be found in Appendix B.

The majority of the parents apparently felt that evenings were a

more convenient time to bring their children to a clinic for a variety of reasons. To further substantiate the time of day which was more convenient to attend a clinic, the parents were asked to select the time of day which they would prefer to come to a clinic with their children. Table 8 shows the results of the time preference for a pediatric outpatient clinic, first and second choices.

Table 8. The distribution of 73 parents' responses to the selection of a time for a pediatric outpatient clinic, first and second choices.

Time Selection For Clinic	First Selection		Second Selection	
	N	%	N	%
Evenings - 5-9PM	60	82.1	9	12.3
Saturdays - Morning	4	5.5	13	17.8
Saturdays - Afternoon	6	8.2	27	37.0
Sundays - Morning	1	1.4	3	4.1
Sundays - Afternoon	1	1.4	13	17.8
No Response	<u>1</u>	<u>1.4</u>	<u>8</u>	<u>11.0</u>
Totals	73	100.0	73	100.0

Evenings were chosen by 82 per cent of the parents as their first choice of time for a pediatric outpatient clinic. The second choice, Saturday afternoon, was selected by 37 per cent of the parents. Saturday morning and Sunday afternoon received an equal number of responses (18 per cent). The parents stated that they

wanted the evening clinic in addition to the daytime clinic. The selection of time corresponds to the hours and days that visits are actually made in the emergency room. (see graph 1. Page 41)

Medical Care Utilization Patterns of the Patient's Family

Emergency room utilization has increased more rapidly than hospital admissions, scheduled clinic visits, or population growth. This pattern of utilization is seen throughout the United States. (16, 27, 30) Table 9 shows the number of visits to the emergency room in the past seven years at the University of Oregon Medical Hospital Emergency Clinic.

Table 9. The total number of pediatric and total ER visits made to the UOMS during the month of March, from 1967 to 1973.

Year	Total ER Visits	Pediatric Visits	Ratio
1967	1951	407	4:1
1968	2235	456	4:1
1969	2093	414	5:1
1970	3078	427	7:1
1971	2934	542	5:1
1972	2662	314	7:1
1973	<u>2949</u>	<u>374</u>	7:1
Total No.	17902	2934	

From 1967 to 1968 the ratio of emergency room visits to pediatric visits was 4:1. In 1969 a slight increase in emergency room visits was noted so that the ratio was now five emergency visits to one pediatric visit. By 1970 the total number of emergency room visits increased appreciably. The ratio at this time was seven emergency visits to one pediatric visit, with the pediatric visits remaining relatively the same as the previous three years. In March 1971 the number of pediatric visits increased by more than one hundred over the previous March. From March 1971 to March 1972 pediatric visits declined from 542 to 314, a decrease coinciding with the opening of four pediatric clinics. There was an upward trend this past year showing a proportionate increase in both pediatric and emergency room visits.

From March of 1967 to March of 1973 approximately 17,902 emergency visits were made to the emergency department and of these 2,934 were visits made by pediatric patients. Even though the population of Multnomah County was estimated to have increased 6 1/2 per cent in the decade from 1960 to 1970, the number of visits to the emergency room increased approximately 51 per cent in the same period of time. Since over half of these patients were seen for non-urgent conditions, as stated previously, the increase appears to be due to a shift in the utilization from true emergencies to general usage, rather than an increase in population growth.

Graph 1. shows the distribution of the number of visits made to the emergency room according to the time of day.* (The distribution represents the 100 subjects who were drawn from the card files.)

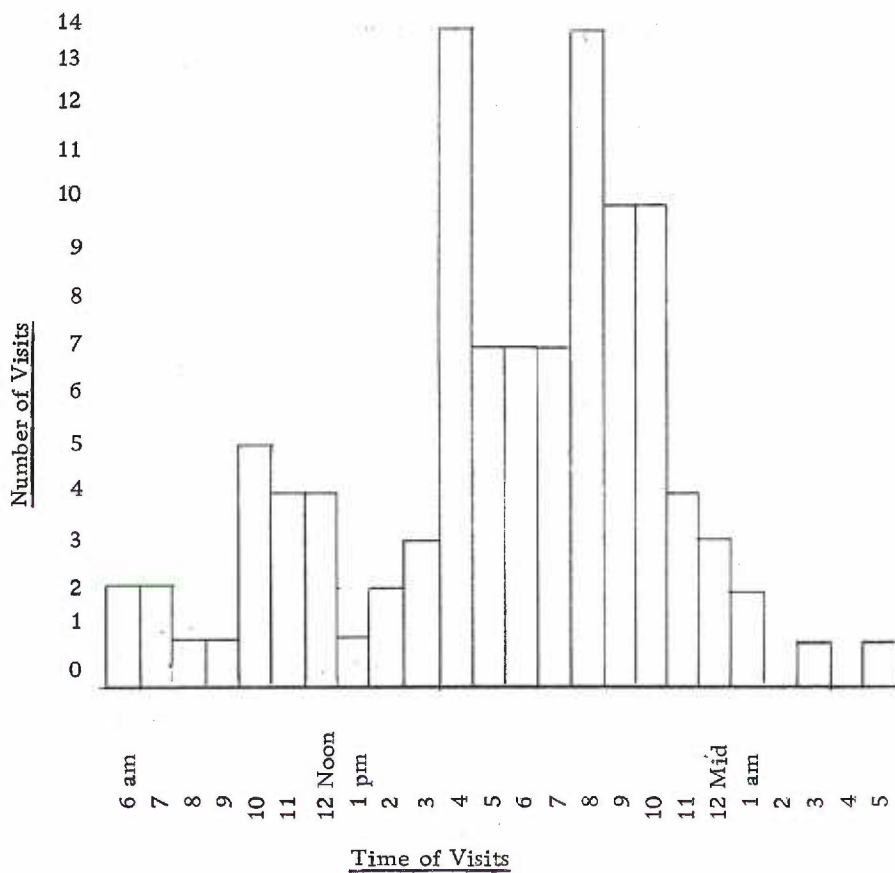
Most of the patients 14 in number, arrived right after the pediatric outpatient clinic was closed, and an equal number of patients arrived after the dinner hour. The next most frequent number of visits was made before midnight. This pattern of visits is similar to those of other studies cited in the review of literature. Sixty-eight of the total number of patients arrived at the ER from 4PM to Midnight. This may further support the claim that evenings are a more convenient time to attend a clinic.

Graph 2 and 3 show the number of visits made by the pediatric patient's family to the emergency room and the outpatient clinic respectfully.

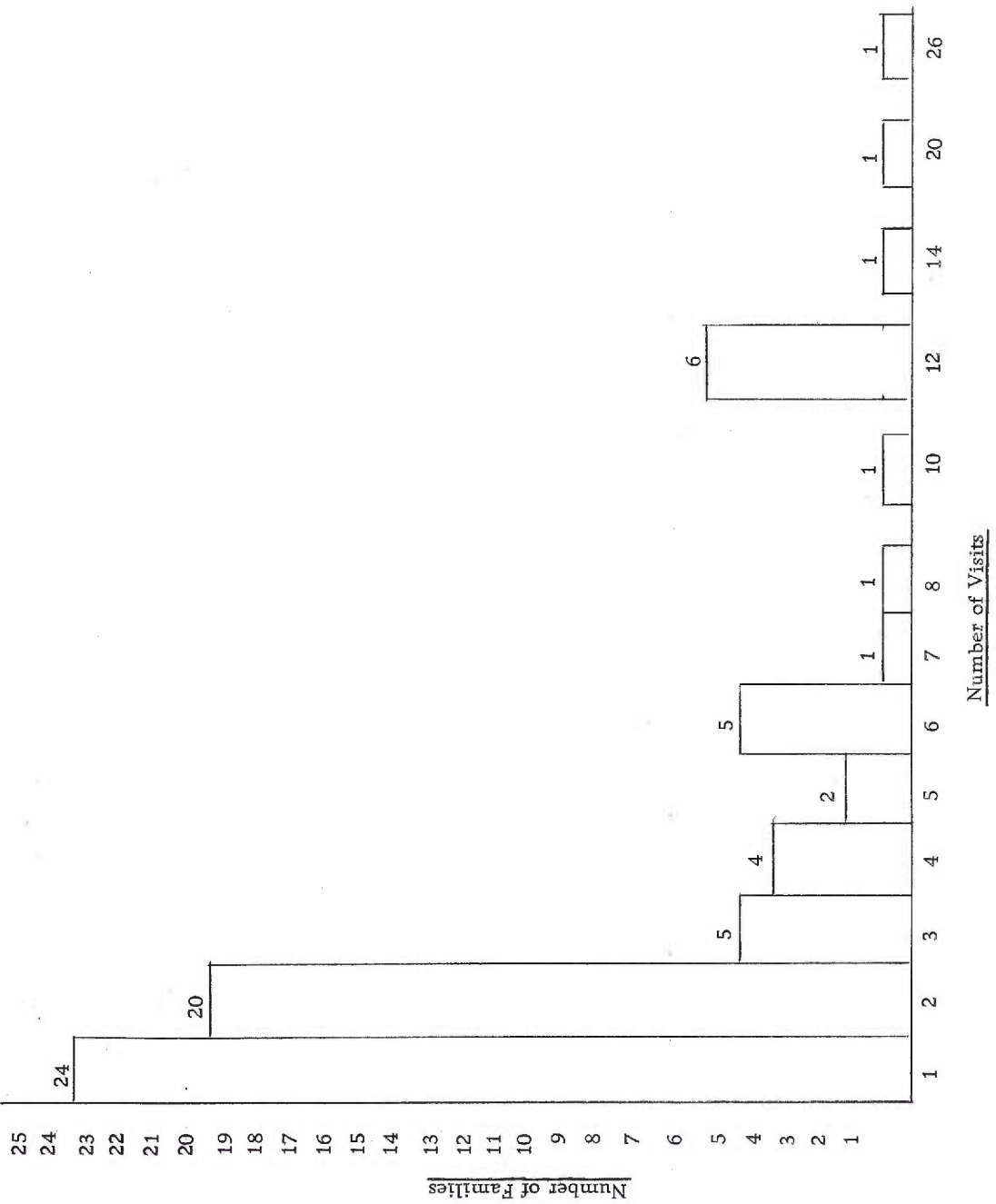
Twenty-four patients visited the emergency room only once, 20 patients visited the emergency room twice and 5 visited the emergency room three times (see Graph 2). It is interesting to note that 9 patients utilized the emergency room as many as 12 to 26 times in one year.

The most frequent number of visits made to the pediatric outpatient clinic was three (see Graph 3). Eleven families utilized the outpatient clinic 20 times in the year 1972. After three visits the patterns of utilization between the

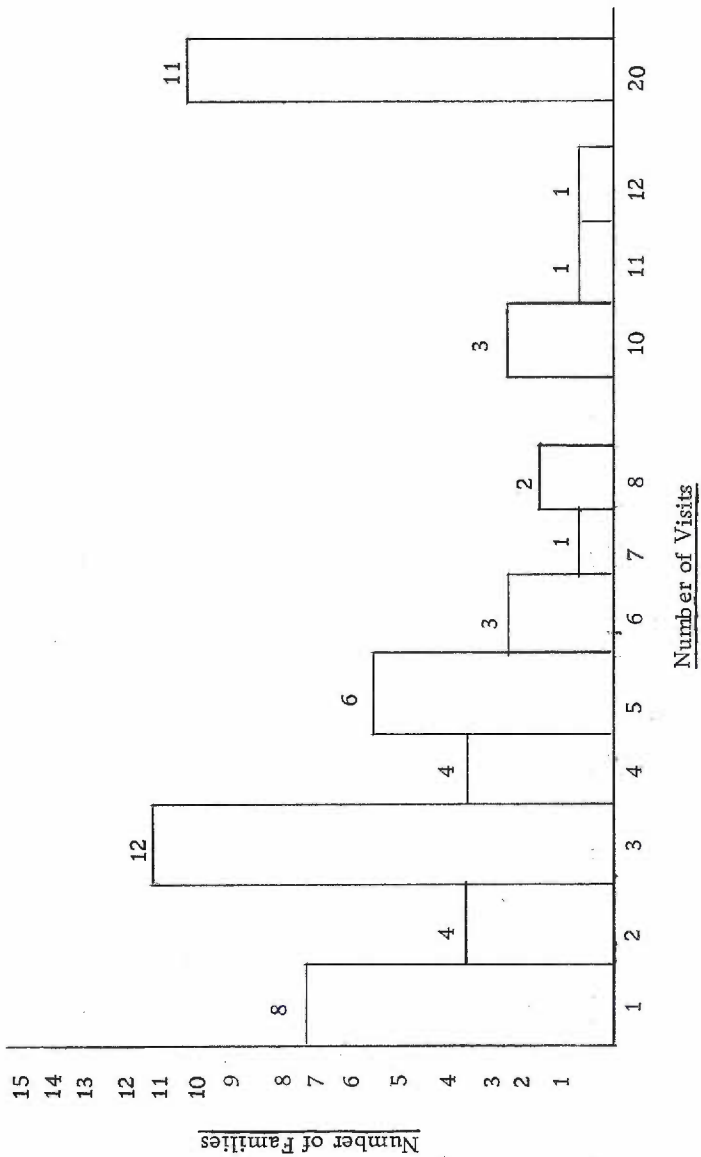
Graph 1. Distribution of 100 pediatric visits to the emergency room by time of day in March, 1973.



Graph 2. The number of visits made by 73 patients' families to the emergency room in 1972.



Graph 3. The number of visits made by 73 patients' families to the pediatric outpatient clinic in 1972.



emergency room and the outpatient clinic show some similarities in usage. This appears to indicate that the two clinics serve similar functions after three visits are made by providing a regular source of medical care for these families.

Table 10 shows the number of visits made by the patient to other pediatric specialty clinics at the same facility.

Table 10. The number of 73 patients utilizing pediatric specialty clinics at the UOMS.

Specialty Clinics	N	%
Allergy	3	4.1
Ear, Nose and Throat	3	4.1
Eye	2	2.7
Heart	1	1.4
Neurosurgical	1	1.4
More than one specialty clinic	4	5.5
Not at the UOMS - Crippled Childrens Div.	6	8.2
Renal	3	4.1
Did not attend specialty clinic	<u>50</u>	<u>68.5</u>
Total	73	100.0

Twenty-three patients utilized other specialty clinics in addition to the emergency room and the pediatric outpatient clinic. Other sources not reported in the table were: 16 families utilized private

medical doctors, of these 7 did not utilize the outpatient clinic; 47 families utilized the pediatric outpatient clinic; and 10 families utilized hospital-based clinics and health department clinics in the community.

Parents' Comments Regarding Care and Services Received
In the Emergency Room and Pediatric Outpatient Clinics

Some of the parents commented about the care received in the emergency room while others expressed their opinions about the pediatric outpatient clinic. The comments regarding the emergency room were as follows:

1. I work and can't afford to take time off from the job. My boss doesn't allow time off for sick children.
2. I have not had any transportation in the daytime, I have to wait until my husband comes home.
3. I prefer the treatment in the emergency room.
4. The examination in the emergency room is very thorough. I would rather go there than a private doctor.
5. I don't care to go elsewhere for medical care, but I am penalized for living thirty miles away. There isn't any emergency room where we live. Why do we have to pay full fee at the emergency room?
6. When I go to the emergency room I always call first, and they help the problem from getting worse.
7. I wait too long in the emergency room, so I avoid going there.
8. The receptionist took 20 minutes before acknowledging. If she was busy, she could have said, "I'll be with you as soon as I can."
9. It would be nice if the nurses would smile or say "hi".

10. It would be nice to have a clinic to bring my child when she's sick, the emergency room is expensive.
11. We will pay our bill somehow. My husband makes \$2.95 an hour but we have a large family. I wonder how many children are neglected because parents put off lumps and bumps because of cost.
12. My son is seen in the Neurosurgical Clinic as there is no one in our area to see. For emergencies I have to go to Portland. It requires one friend to babysit and the family car doesn't run well enough to drive that far so we borrow a friend's car. My husband has to take off work, a week day trip takes quite a chunk out of the already strained budget.
13. A person would not have to go to the emergency room if they were able to go to a clinic or doctor at this time of the evening.

The comments regarding the care received in the pediatric outpatient clinic were as follows:

1. The waiting time is too long, up to five hours.
2. Without an appointment you have to wait a long time, longer than those with appointments.
3. The clinic is too full in the daytime.
4. I would like to see the same doctor, it would be more personal. It would not take so long to look through the chart, the doctor would be more familiar with it.
5. There should be some way for a person's chart to follow them when they are to be here all day for x-rays and treatment. Too much time is spent in trying to locate records.

The parents' comments regarding the care received in the emergency room and the pediatric outpatient clinic ranged from not being able to attend a weekday daytime clinic to preferring the care received in the emergency room. Others expressed concern about

the cost of the emergency room while some of the parents felt that the waiting time was too long and too much time was lost in locating and reviewing records.

Summary

Most of the families in this study had young children, 77 per cent of whom could utilize and benefit from an expanded emergency clinic or a pediatric outpatient clinic with extended hours for several more years. The majority of the visits to the emergency room were made by families whose annual income was below \$5,999 (74 per cent), one third of these were single parents.

Over half of the emergency room visits were for non-urgent conditions. Only 33 per cent of these cases were referred for follow-up treatment from the emergency room. The main reason for bringing their child to the emergency room was because the condition had become worse. Other parents indicated that evenings and weekends were a more convenient time to attend a clinic for various reasons.

There has been an increase in the number of emergency room visits although this was not reflected in the number of pediatric visits, which have declined the past two years. Most of the patients arrived at the emergency clinic after the outpatient clinic was closed, and an equal number of patients arrived after the dinner hour

indicating that evenings were a more convenient time to attend a clinic. Some of the families utilized either the emergency room or the pediatric outpatient clinic for regular care, or both of the clinics. In addition 23 of these patients were seen in other pediatric specialty clinics.

CHAPTER IV

DISCUSSION

There has been an ever increasing use by the public of emergency departments for non-emergency services. People seem to be turning to emergency clinics for health care of their children instead of the pediatric clinics. Although the reasons for this behavior are varied, two of the main ones seem to be that: (1) parents perceive that the condition of their child warrants emergency care and; (2) weekends and evenings are undoubtedly a more convenient time for many of the parents to attend a clinic. The emergency room meets this need by providing twenty-four hour medical coverage and by having physicians available during this time.

The results described herein strongly suggest that the utilization of the emergency clinic is influenced by various circumstances which are not directly associated with the disease state. The interplay of these factors, as will be seen, often appears to determine the utilization pattern of health care of these families.

Demographic and Economic Factors

The demographic variable, family composition, is important

in relation to the utilization of emergency clinics for non-emergency services. One third of the families studied have one parent. Kahn (17) reported that women who headed families tended to use the emergency room for regular care. However, Wingert (31) designed a study to determine whether single or two parent families utilized the emergency department services more. Results of the study showed no difference between the two family groups, but both of these family groups were low income. In the present study 74 per cent of the families earned below \$5,999 per year. This could be due simply to the population within the area of the hospital or the policy of the hospital to serve mainly the lower income family. However, Solon (24), Weiss (11) and Greenlick (28) surveyed two different populations, the suburban middle income and the low income, and found that the number of visits to the emergency room by the low income families was two times the number of visits made by middle income families. This finding is similar to that in this study where two thirds of the population were low income when all economic groups are served in this hospital.

Diagnostic Factors

More than half of all the cases seen in the emergency room are for non-urgent conditions (13, 16, 17, 27, 30). The diagnosis alone does not determine whether the condition is urgent or non-urgent,

but rather it appears to be the degree of severity or acuteness which determines the urgency or non-urgency of the illness. Upper respiratory infections accounted for 32 per cent of the illnesses seen in the emergency room, while 3 per cent were for moderate to severe injuries and another 8 per cent were admitted to the hospital for other acute conditions. However, it must be pointed out that no attempt was made at the time of the visit to determine whether or not the child, regardless of the acuteness of the condition, could have waited another twelve to twenty-four hours to be seen in an out-patient pediatric clinic. Weinerman (27) and Wingert (30) reported that as few as 10 per cent of the families needed to be seen immediately, most of the cases could have been seen the next day.

Medical Care Utilization Factors

The number of visits made to the emergency room in the evenings and on weekends seems to provide evidence that this time of the day and day of the week is a more convenient time to attend a clinic. The heaviest nighttime utilization is immediately after the daytime clinics are closed and after the dinner hour. Other studies showed the same utilization patterns regarding the time of day the emergency clinic was visited. (16, 17)

The main reason given by the parent in the emergency room for seeking care at that time was that their child's condition had

become worse. Other studies have suggested that the lack of readily available funds, lack of daytime transportation, lack of availability of physicians in economically depressed and overcrowded urban areas as reasons for heavy nighttime utilization. (17, 31) Some of the other reasons given in this study were similar, such as lack of transportation in the daytime, parents working days, lack of a family doctor or the regular family doctor could not see their child that day due to a full schedule. In addition to these reasons the parents expressed that evenings and weekends were more convenient because babysitters were more readily available, that there were fewer parking problems, there was more time to get to the clinic, and there was less waiting time in the emergency room since the daytime outpatient clinic was always busy. Most of the studies did not ask the parents directly about their reasons for utilizing the emergency clinic but chose to survey the number of physicians available in depressed areas, tabulate the hours of peak utilization and conclude that the heavy nighttime utilization was due to inaccessibility to physicians offices after 5PM.

Implications of the Study

The study of medical care is extremely complex because so many of the preliminary questions concerning utilization have not been answered. Providing health care services depends on

pediatric outpatient clinics. Evenings and weekends were undoubtedly a more convenient time to attend a clinic.

Recommendations For Further Study

1. Replicate the study using a larger random sample to verify the need for expanded services.
2. Study the feasibility of utilizing the emergency clinic as a combined walk-in and critical care clinic, taking into consideration the cost factors involved in providing services in this setting.
3. Study the plausibility of training specialized nurses to assess the patients' condition upon the arrival at the emergency clinic as a means to lessen the patients' waiting time and reduce clinical costs.
4. Design a program to provide computerized family records so that the information on a given patient would be readily available for continuity of care, and facilitate time lost in locating records and reports. Installation should include audio-visual and electronic devices to enable all aspects of the delivery system to be directly monitored, recorded, and retrieved. Included in this should be; (1) facilities for telediagnosis to enable physicians to consult with subspecialists and others located at the Medical School, (2) a completely computerized medical record and medical decision-making system, (3)

videotape equipment linked to monitor screens located in a central area to enable all activities to be observed, recorded, and discussed.

REFERENCES

REFERENCES

1. Alpert, Joel., et al., "Effective Use of Comprehensive Pediatric care," The American Journal of the Diseases of Children, 116: 529-533, November 1968.
2. American Medical Association, Proceedings American Medical Association's Conference on Emergency Services, Chicago, American Medical Association, 1967.
3. Close, Kathryn, "Promoting Child Health Through Comprehensive Care," Children, 16:131-137, July-August 1969.
4. Conference on Health Services For Children And Youth, The American Public Health Association, March 1969.
5. Crook, William G., "The Private Pediatrician's Future," The American Journal of the Diseases of Children, 116:479-485, November 1968.
6. DeGeyndt, Willy, and Linda M. Sprague, "Differential Patterns In Comprehensive Health Care Delivery For Children And Youth: Health Department, Medical School, Teaching Hospital," American Journal of Public Health, 60:8:1402-1413, August 1970.
7. Donabedian, Avedis, "Promoting Quality through Evaluating The Process Of Patient Care," Medical Care, 6:3:181-202, May-June 1968.
8. Golden, Archie S., "High Noon For Child Health Care," Clinical Pediatrics, 11:6:316-318, June 1972.
9. Goodrich, Charles H., et al. "Hospital-based Comprehensive Care: Is It A Failure?" Medical Care, 10:4:363-368, July-August 1972.
10. Goss, Walter A., and Patria Asher, "Evaluation Of The Pediatric Outpatient Clinic, University Of Oregon Medical School," Unpublished Study, University Of Oregon Medical School, June 1966.

11. Greenlick, Merwyn R., et al, "Comparing The Use Of Medical Care Service By A Medically Indigent And A General Membership Population In A Comprehensive Prepaid Group-Practice Program, " Medical Care, 10: 3: 187-200, May-June 1972.
12. Haggerty, Robert J., "Present Strengths and Weaknesses In Current Systems of Comprehensive Health Services For Children and Youth, " American Journal of Public Health, 60: 4: 74-105, April 1970.
13. Heagarty, Margaret, "Some Comparative Costs in Comprehensive versus Fragmented Pediatric Care, " Pediatrics, 46: 4: 596-603, October, 1970.
14. Hochheiser, Louis, et al, "Effect of the Neighborhood Health Center On the Use of Pediatric Emergency Department In Rochester, New York, " New England Journal of Medicine, 285:3: 148-152, July 15, 1971.
15. Hurtado, Arnold V., and Merwyn R. Greenlick, "A Disease Classification System for Analysis of Medical Care Utilization, With a Note on Sympton Classification, " Health Services Research, 6:235-250, Fall 1971.
16. Jacobs, Arthur R., et al, "Emergency Department Utilization In An Urban Community, " Journal of the American Medical Association, 216:2: 307-312, April 12, 1971.
17. Kahn, Lawrence, et al, "Patient's Perception and Uses of a Pediatric Emergency Room, " Social Science and Medicine, 7:2:155-160, February 1973.
18. McCune, Donovan J., "The Kaiser-Permanente Plan In Child Health Care, " Pediatric Clinics of North America, 16: 4: 875-883, November 1969.
19. Moore, Gordon T., and Kenneth Frank, "Comprehensive Health Services for Children: An Exploratory Study of Benefit, " Pediatrics, 51: 1: 17-21, January 1973.
20. Olendzki, Margaret C., et al, "The Impact of Medicaid On Private Care for the Urban Poor, " Medical Care, 10:3:201-206, May-June 1972.

21. Pock, John C., Delivery and Utilization of Pediatric Outpatient Care, Unpublished Study, University of Oregon Medical School, Portland, Oregon, June 1969.
22. Schantz, Donna B., Follow-up Study of 132 Adult Patients Concerning the Emergency Department Care They Received at Four Metropolitan Hospitals, Unpublished Master's Thesis, University of Oregon, Portland, Oregon, 1969.
23. Solky, Charles G., and Robert A. Hockelman, "The Pediatric Emergency Department; Locus for Recognition of Psychosocial Disability," Clinical Pediatrics, 10:9:524-527, September 1971.
24. Solon, Jerry A., and Ruth D. Rigg, "Patterns of Medical Care Among Users of Hospital Emergency Units," Medical Care, 10:1:60-72, January-February 1972.
25. Sparer, Gerald, B. A., and Arne Anderson, "Cost of Services at Neighborhood Health Centers," New England Journal of Medicine, 286:23:1241-1245, June 8, 1972.
26. Wallace, Helen M., "Comprehensive Health Care of Children," American Journal of Public Health, 58:10:1839-1847, October, 1968.
27. Weinerman, E. R., et al, "Yale Studies In Ambulatory Medical Care," American Journal of Public Health, 56:1037-1056, September 1966.
28. Weiss, James E., and Merwyn R. Greenlick, "Determinants of Medical Care Utilization: The Effect of Social Class and Distance On Contacts With the Medical System," Medical Care, 8:6:456-462, November-December, 1970.
29. White, Kerr L., "Medical Care For Children," The American Journal of Diseases of Children, 115:5:458-467, November 1968.
30. Wingert, W. A., "Changing Trends and Opportunities In Pediatric Emergency Care," Medical Times, 98:5:146-154, May 1970.
31. _____, et al, "The Influence of Family Organization On the Utilization of Pediatric Emergency Services," Pediatrics, 42:743-751, November 1968.

32. Zulinski, William T., and Carl L. Mosher, "Updating Expanding Out-patient Facilities," Hospitals, 47:3:91-96, February 1, 1973.

APPENDICES

APPENDIX A

CORRESPONDENCE

AND

QUESTIONNAIRE

University of Oregon Medical School

Comprehensive Health Service

And Insurance Resources Study

March 24, 1973

Dear Parent/s:

Your child was seen recently in our Emergency Department, and since we are constantly trying to improve our services would value your opinion as patrons of this Hospital.

The increase in the number of children seen in the Emergency Department indicates that there may be a need for expanded clinic services. Kindly help us to determine this need by filling out the enclosed questionnaire.

Enclosed you will find a stamped self-addressed envelope for ease in returning the questionnaire as soon as possible. Everything will be held in strict confidence, and no names will be identified in the study.

Please feel free to answer the questions in any way you feel most comfortable. Thank you for your cooperation in this matter.

Very truly yours,

Joan E. Binkley R. N.
Masters Student

INTRODUCTION

Hello _____ I'm Mrs. Joan Binkley, I am doing a study of the need for expanded clinic services. I am a nurse, everything will be held in strict confidence, and no names will be identified in the study. Please feel free to answer the questions in any way you feel most comfortable.

The information in the form of numbers only will be given to hospital officials, so that they can determine if there is a need for expanded clinic services.

Information to be taken from the patient's record.

Patient's Name _____

Address _____

Parent's name or person
caring for patient _____

Address _____

Unit # _____

Birth date _____

M _____ F _____

Diagnosis _____

Date of visit _____

Time of day _____

University of Oregon Medical School

Comprehensive Health Service

And Insurance Resources Study

Child's Unit No. _____

A. CIRCLE the number of children: (living in the same home only)

1 2 3 4 5 6 7 8 9 10 11 12

B. CHECK other persons living in the home other than children:

- | | |
|-------------------|-------|
| 1. Mother | _____ |
| 2. Father | _____ |
| 3. Grandparents | _____ |
| 4. Aunts & Uncles | _____ |
| 5. Babysitter | _____ |
| 6. Others | _____ |

C. CIRCLE the ages of the children in the home:

Under 1 1 2 3 4 5 6 7 8 9 10 11 12 13+

Please answer all the questions. Place a MARK on the line to answer the remaining questions which fit your family. Some questions may have more than one choice.

D. The reason for bringing the child for care was:

- | | |
|--|-------|
| 1. because of an injury | _____ |
| 2. the child had been sick for a few days | _____ |
| 3. because of the flu or a cold | _____ |
| 4. because I was unable to get a clinic appointment that day | _____ |
| 5. because the family doctor could not see child that day | _____ |
| 6. other reason _____ | _____ |
| _____ | _____ |

- E. If there was an evening pediatric out-patient clinic:
- 1. both parents could come _____
 - 2. there would be less parking problems _____
 - 3. neither parent would miss work _____
 - 4. the child would not miss school _____
 - 5. other reason _____

- F. Would it be helpful to your family if a pediatric clinic was open evenings and weekends? (please place a 1 after your first choice, a 2 after your second choice and so on)
- 1. Evening clinics (5-9:00 PM) _____
 - 2. Saturdays - Morning _____
 - 3. Saturdays - Afternoon _____
 - 4. Sundays - Morning _____
 - 5. Sundays - Afternoon _____

- G. For medical advice and care you normally go to:
- 1. Private doctor _____
 - 2. Drug store _____
 - 3. Clinic _____
 - 4. Other _____

- H. Have you ever been to the pediatric out-patient clinic here?
- 1. Yes _____
 - 2. No _____

- I. If "yes" please CIRCLE approximate number of visits (total) your family has made in the past year.
- 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20+

- J. Have you had babysitting problems during clinic visits?
- 1. Yes _____
 - 2. No _____

Comment _____

K. Have you been attending a special clinic for your child?

- 1. Yes _____
- 2. No _____
- 3. Renal clinic _____
- 4. Metabolic _____
- 5. Eye _____
- 6. ENT (ear, nose) _____
- 7. Cardiology _____
- 8. Speech & hearing _____
- 9. Dermatology _____
- 10. Other clinic (not at U. of
Ore. Med. School) _____

L. Medical costs which you paid for this child in 1972

- 1. 0-\$5 _____
- 2. 6-10 _____
- 3. 11-20 _____
- 4. 21-40 _____
- 5. 50+ _____

M. Family Income: (yearly)

- 1. Below \$3000. _____
- 2. 3000-5999. _____
- 3. 6000-9999. _____
- 4. 10000-14999. _____
- 5. Over \$15000 _____

N. Other Expenses include: (place MARK only)

- 1. Health insurance, what company? _____
- 2. House payment _____
- 3. Rent _____
- 4. Utilities _____
- 5. Other insurances _____
- 6. Union dues _____
- 7. Other _____

O. Used the emergency room: (CIRCLE the total number of times for your family this past year)

- 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20+

P. Transportation the evening attended the emergency room:

1. Private car _____
2. Friend's car _____
3. City bus _____
4. Taxi _____
5. Truck _____

Q. How long does it take from your home to the hospital? (please write in time)

1. _____

R. Distance from your home to hospital?

1. Less than 5 miles _____
2. 6-9 miles _____
3. 10-19 _____
4. 20-29 _____
5. 30-50 _____
6. Over 50 miles _____

S. Was a clinic appointment made after the visit to the emergency room in March of this year?

1. Yes _____
2. No _____

T. We would welcome comments and suggestions about the care and services received. Please feel free to write them on the back of this sheet or sheets. Again no names will be identified. Thank you for your cooperation.

APPENDIX B

SUMMARY OF DATA

University Of Oregon Medical SchoolComprehensive Health ServiceAnd Insurance Resources Study

Child's Unit No. _____

A. CIRCLE the number of children: (living in the same home only)

1 2 3 4 5 6 7 8 9 10 11 12

Average 2.8

B. CHECK other persons living in the home other than children:

1. Mother	<u>45</u>
2. Father	<u>22</u>
3. Grandparents	<u>1</u>
4. Aunts & Uncles	<u>1</u>
5. Babysitter	<u>0</u>
6. Others	<u>4</u>

C. CIRCLE the ages of the children in the home:

Under 1 1 2 3 4 5 6 7 8 9 10 11 12 13+

Under 13 (56)
Over 13 (2)
Both (15)

Please answer all the questions. Place a MARK on the line to answer the remaining questions which fit your family. Some questions may have more than one choice.

D. The reason for bringing the child for care was:

1. because of an injury	<u>12</u>
2. the child had been sick for a few days	<u>29</u>
3. because of the flu or a cold	<u>14</u>
4. because I was unable to get a clinic appointment that day	<u>11</u>
5. because the family doctor could not see child that day	<u>5</u>
6. other reason _____	<u> </u>

E. If there was an evening pediatric out-patient clinic:

1. both parents could come	<u>23</u>
2. there would be less parking problems	<u>41</u>
3. neither parent would miss work	<u>31</u>
4. the child would not miss school	<u>28</u>
5. other reason _____	<u> </u>

F. Would it be helpful to your family if a pediatric clinic was open evenings and weekends? (please place a 1 after your first choice, a 2 after your second choice and so on)

1. Evening clinics (5-9:00 PM)	<u>58</u>	(1)
2. Saturdays - Morning	<u> </u>	
3. Saturdays - Afternoon	<u>13</u>	(2)
4. Sundays - Morning	<u> </u>	
5. Sundays - Afternoon	<u>13</u>	(2)

G. For medical advice and care you normally go to:

1. Private doctor	<u>12</u>
2. Drug store	<u>0</u>
3. Clinic	<u>46</u>
4. Other _____	<u>14</u>
no response	<u>1</u>

H. Have you ever been to the pediatric out-patient clinic here?

1. Yes	<u>19</u>
2. No	<u>54</u>

I. If "yes" please CIRCLE approximate number of visits (total) your family has made in the past year.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20+

Average (3) per family

J. Have you had babysitting problems during clinic visits?

1. Yes	<u>19</u>
2. No	<u>54</u>

Comment _____

P. Transportation the evening attended the emergency room:

1. Private car	<u>55</u>
2. Friend's car	<u>13</u>
3. City bus	<u>2</u>
4. Taxi	<u>3</u>
5. Truck	<u>0</u>

Q. How long does it take from your home to the hospital? (please write in time)

1. average within 35 min.

R. Distance from your home to hospital?

1. Less than 5 miles	<u>10</u>
2. 6-9 miles	<u>20</u>
3. 10-19	<u>23</u>
4. 20-29	<u>9</u>
5. 30-50	<u>7</u>
6. Over 50 miles	<u>4</u>

S. Was a clinic appointment made after the visit to the emergency room in March of this year?

1. Yes	<u>38</u>
2. No	<u>35</u>

T. We would welcome comments and suggestions about the care and services received. Please feel free to write them on the back of this sheet or sheets. Again no names will be identified. Thank you for your cooperation.

Reasons For Bringing the Child
To the Emergency Room For Care

Responses to Question D

1. Family doctor referred us to Portland where our records are kept.
2. Referred by the Multiservice Center.
3. The babysitter can't bring the child in during the week.
4. I work.
5. No transportation.
6. My husband and I are separated and I receive only 35.00 per week for food.
7. Our boy is hydrocephalic, he awoke with a severe headache, we were told to bring him up to emergency.
8. No car and impossible to get kids into clinic when sick.
9. Had surgery at that hospital. I felt they should also do the emergency care.
10. Our physician in Corvallis sent us there to meet an ENT specialist.
11. I called a doctor on call and gave the injury information and was told to bring in the child.
12. We were out of town.
13. We have no family doctor and she needed treatment right away.
14. My appointment I had at the clinic was for him but I arrived too late.
15. Bleeding.
16. Earache.
17. Possible hernia.
18. Ate some iron pills.
19. Earache, vomiting.
20. I thought it was appendicitis.

21. Bleeding navel, no other way of seeing a doctor.
22. Very ill that night, temperature 104, fretful, pain.
23. Sudden onset of pain accompanied by a cough.
24. Bad diaper rash and sores, needed care.
25. Reoccurring asthma.
26. Acute asthma attack.
27. Child needed meds for extended cold.
28. My child had a bad rash, a welt-like rash.
29. All at once he came down with a high fever and then a few days later an allergic reaction to that form of penicillin they gave him.

Reasons For An Evening Pediatric Clinic

Responses to Question E

1. Wouldn't have to bring the child to the emergency.
2. Better transportation.
3. More time to come in on.
4. The doctor could see him later when sick.
5. I work to 6PM.
6. Easier to get a babysitter.
7. Would not have quite a long wait.
8. Easier to get there.
9. Would be more convenient, days are awfully busy.
10. Child seems to be sick in the evenings.
11. I have no transportation, I have to get someone to bring me up there.
12. The transportation would be less of a problem, buses are terrible during the day.
13. Could get emergency medical assistance any time.
14. Due to allergies etc., night attention is sometimes necessary.
15. Can leave children at home with sitter and not have to drag others and wait for 3 hours.
16. More convenient if done on an appointment basis.
17. The cost would be lower.
18. A daytime clinic is also important, don't eliminate it.
19. Would not have to wait so long to see a doctor when the child is ill.
20. Children usually really get sick at night and as this is after the doctor's office is closed for the day.
21. My husband could watch the other children while I was there.
22. There would be doctors there that would know about baby problems.

23. If he became sick in the middle of the night there would be a place to take him where they specialize in kids.
24. You would probably not have to wait for an appointment.
25. Most problems occur at night.
26. More convenient.

APPENDIX C

VARIABLES

DESCRIPTION OF DATA

COLUMN NUMBER	VARIABLE	CODE
1-6	Identification number	Unit number
7	Interview vs Mail	0=interview 1=mail
8, 9	Birth month	
10, 11	Birth date	
11, 12	Birth year	
14	Sex	1=male 2=female
15, 16	Diagnosis	1=injury-major 2=injury-minor 3=URI 4=temp above 103 ^o , not admitted 5=otitis media 7=poisoning 8=allergies, skin rash 9=acute asthma 10=renal problems, urinary 11=communicable diseases 12=surgical problems 13=chronic disease, not admitted 14=admitted 15=miscellaneous, blood work, etc.
17	Number of children	1-8 9=9+
18	Number of others	1=1 parent only 2=mother and father 3=grandparents 4=aunts and uncles 5=babysitter 6=1parent and others
19	Age range	1=1-12 years 2=13+ 3=children in both ranges

COLUMN NUMBER	VARIABLE	CODE
20, 21	Reason for bringing child	1=because of an injury 2=the child had been sick for a few days 3=because of the flu or cold 4=because I was unable to get a clinic appointment 5=because the family doctor could not see the child that day 6=other doctor referred 7=no doctor 8=called, told to come in 9=no transportation during the day 10=work, can't come in 11=missed clinic appointment 12=out of town 13=miscellaneous diagnosis reasons
22, 23	Reasons for evening clinic	1=both parents could come 2=there would be less park- ing problems 3=neither parent would miss work 4=the child would not miss school 5=wouldn't have to go to emergency 6=better transportation 7=more time to get to clinic 8=child seems to be sick later in the day 9=work during day 10=more babysitters 11=less waiting time 12=more convenient, days busy 13=cost would be lower 14=need both daytime and evening clinic

COLUMN NUMBER	VARIABLE	CODE
24	Choice of time for clinic	0=no response 1=daytime only 2=evenings 3=Saturdays--AM 4=Saturdays--PM 5=Sundays--AM 6=Sundays--PM
25	Second choice	1, 2, 3, 4, 5, 6 and 0 as above
26	For medical advice	0=no response 1=private M. D. 2=drug store 3=clinic 4=Crippled Children's Div. 5=Emanuel Hospital 6=Multiservice Center 7=Emergency room, UOMS 8=1 and 3 above 9=3 and 7 above
27	Use pediatric clinic at UOMS	1=yes 0=no
28, 29	Number of visits to clinic in past year	1=19 20=20+
30	Babysitting	1=yes 0=no
31	Attendance at specialty clinics	0=no 1=Renal 2=Neurosurgical 3=Eye 4=ENT 5=Cardiology 6=Allergy 7=Dermatology 8=Other clinic not UOMS 9=Multiple

COLUMN NUMBER	VARIABLE	CODE
32	Medical costs	0=none 1=1-\$5 2=6-10 3=11-20 4=21-40 5=50+ 6=no response
33	Family income	0=no response 1=below \$3000 2=3000-5999 3=6000-9999 4=10000-14999 5=over 15000 6=no income 7=foster children
34	Health insurance	0=none 1=Welfare 2=Blue Cross of Oregon 3=Prudential 4=Mutual of Omaha 5=Oregon Physicians Service 6=Kaiser Health Foundation 7=not specified 8=Government
35, 36, 37,38 and 39, 40	Not calculated, not reliable	
41, 42	Used the ER in past year	Number of times
43	Transportation to ER	1=private car 2=friend's car 3=city bus 4=taxi
44, 45, 46	Time from home to ER	0=no response time in minutes
47	Distance	1=less than 5 miles 2=6-9 3=10-19 4=20-29 5=30-50 6=over 50 miles
48	Follow-up	1=yes 0=no

APPENDIX D
PROGRAM PLAN
FOR
IMPROVED SERVICES TO CHILDREN

Students

Nursing Students

2. Use free time to teach Pediatric Emergency Medicine using our text.
 3. Ambulatory patient problem analysis.
- D. Lead money for research grant interdigitation.
-

PROGRAM PLANNING: FIRST PHASE

- I. Survey present effective Pediatric OPD hours vs. those on the books; i. e. when patients are first seen, during lunch hour and cost for day. Scheduling of appointments by hours or fractions of day.
- II. Survey POPD volume.
- III. Survey effective emergency room hours. How they interdigitate with clinic hours.
- IV. Survey ER volume of walk-in or carry-in Pediatric patients. Peak hours.
- V. Survey ER Ped. patients as to fraction of which are true emergencies vs. those readily handled in a POPD.
- VI. Review previously developed documents; i. e. grants, brochures, in-house studies related to POPD and ER function to identify nurse/patient load and doctor/patient/hour; and patient characteristics, cost and personnel factors, lab/patient problem areas deserving study; planning and implementation to improve ambulatory and pediatric patient services.
- VII. Survey families attending specialty chronic disease clinics by written questionnaire and/or oral interview as to the presence of economic and psycho-social hardships which would be relieved by establishing evening and Saturday clinics.

- VIII. Survey individuals presenting with a child at emergency room to obtain information as to circumstances of nocturnal visit, motivations and psychosocio-economic profile.

AN ABSTRACT OF THE FIELD STUDY OF

JOAN F. BINKLEY

For the MASTER OF NURSING

Date of receiving this degree: June 7, 1974

Title: A STUDY OF THE USE OF THE EMERGENCY DEPARTMENT
AS A WALK-IN CLINIC FOR PEDIATRIC PATIENTS

APPROVED: _____

Marie Berger, M.N., Assistant Professor
Field Study Advisor

The purpose of this study was to survey the parents of pediatric patients who utilized the emergency room as a "walk-in clinic for non-emergencies and examine the reasons why the emergency clinic at the University of Oregon Medical School Hospital was utilized in this manner.

One hundred thirty-four persons were contacted to participate in this study and 73 (54 per cent) submitted usable questionnaires. All of the subjects visited the emergency room during the month of March, 1973. A total of 345 pediatric patients were seen during the

month of March, 1973, the sample in this study represented one-fourth of the total number of pediatric patients who visited the Emergency Clinic that month.

Findings

The findings are summarized as follows:

1. Most of the families had had very young children since 58 per cent of the patients of were under five years of age and only 23 per cent had children over thirteen years of age.
2. The visits were made primarily by families whose annual income was below \$5999 per year and one-third of these families had only one parent.
3. Over half (57 percent) of the pediatric patients were classified as having non-urgent conditions.
4. The main reason the parents brought their children to the emergency room was because the child's condition had become worse.
5. Evenings were chosen by the parents as their first choice of a time for a clinic.
6. The emergency room was most frequently visited after the pediatric clinic was closed and after 7PM.
7. Some families utilized the emergency clinic for regular care

nine of whom utilized the emergency room from 12 to 26 times in one year.

Conclusions

The following conclusions were derived from the data obtained in this study:

1. The parents of the pediatric patients felt that the care needed for their children warranted the use of the emergency room.
2. For a variety of reasons evenings and weekends were a more convenient time for the majority of parents of the pediatric patients visiting the emergency room to attend a clinic.
3. Social class was a major factor influencing the utilization of the emergency room.
4. The subjects in this study utilized the emergency clinic, the pediatric outpatient clinic as well as other sources for regular medical care.

