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A STUDY TO IDENTIFY FUNCTIONS
WHICH INHIBIT OR FACILITATE THE HEALTH
CARE DELIVERY PROCESS ON WARD 51 AT
WALTER REED ARMY MEDICAL CENTER, WASHINGTON, D.C.

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A Problem-Solving Project
Submitted to the Faculty of
Baylor University
In Partial Fulfillment of the
Requirements for the Degree
of
Master of Hospital Administration

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By

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<p>In recent years, national concern for the increasing costs of providing health care has forced hospital administrators to focus on methods which will improve efficiency of operations, decrease resource consumption, and reduce operation costs. This study identifies functions which inhibit or facilitate the health care delivery process on Ward 51 at Walter Reed Army Medical Center. The interaction among the ward's physicians, nurses, administrative staff, physical layout, patient census, organization, and leadership are but a few of the areas considered by the author. <i>Keywords:</i></p>			
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CHAPTER I

INTRODUCTION

General Information

In recent years, national concern for the increasing costs of providing health care has forced hospital administrators to focus on methods which will improve efficiency of operations, decrease resource consumption, and reduce operating costs. Resources management for today's hospital administrator tends to focus on the employee since he is the most expensive of the resources used in providing patient care. Productivity of the workforce is emerging as a popular and obvious target for improving efficiency of health care delivery.

Economic and political pressures to reduce the size of the military medical structure have added impetus to the drive for improved productivity and performance. At the same time, maintaining acceptable standards of quality is an expectation of both the sophisticated health care consumer and the dedicated health care provider. In the complex health care delivery system of the Army, highly motivated health care professionals strive to provide quality patient care in compliance with stringent resource management guidelines.

In Army hospitals, it is the physician who is ultimately responsible and accountable for the delivery of patient care. The hospital commander expects the accountable medical officer

for each department or service to apply effective management practices to ensure that health care delivery processes are accomplished efficiently and effectively. It is in response to this requirement that the Chief of General Pediatric Service of the Department of Pediatrics has reviewed the operation of the Pediatric Unit on Ward 51.

Health care delivery on Ward 51 is accomplished by three primary functional groups: physicians, nurses, and administrative personnel. Each discipline is responsible and accountable for elements of the delivery process and collaborates with the others to complete the mechanism for health care delivery. A systems approach requires management of interdependent components to achieve the manager's objective of improved performance and efficient resource use. Management also requires some measure of performance effectiveness. Within the context of a ward situation where health care professionals perform a myriad of complicated functions with varying degrees of interdependence, a performance measurement must be determined which will include these variables.

Measures of effectiveness of hospital performance can be either patient care measures or administrative measures, and can further be addressed in terms of Donabedian's four measures or components of quality.¹ Outcome measures attempt to evaluate effect on the patient of care provided. Process

measures evaluate the procedural element of providing care. Attitudinal measures identify opinions and assessment of both health care consumers and providers.

Expressions of dissatisfaction among the health care providers on Ward 51, in combination with observed episodes of communication breakdown, systems' failures, and negligible results from concentrated efforts to improve the health care delivery process have resulted in an unacceptable performance plateau. The Chief of General Pediatric Service has requested an analysis be done to identify dysfunctional systems elements or processes so that efforts may be directed to improving performance and productivity of the workforce.

Impetus for the Study

The Chief of General Pediatric Service, Department of Pediatrics, requested an objective analysis of the multifaceted activities which take place on Ward 51 to determine what factors impede or promote the delivery of quality health care on this ward. After devoting considerable effort to intensive management, the physician had not successfully introduced policy or systems changes which resulted in perceptible improvements. External evaluation was requested to provide direction for further management efforts.

Statement of the Problem

The problem was to identify functions which inhibit or facilitate the health care delivery process on Ward 51 at Walter Reed Army Medical Center.

Objectives

The objectives of this study were the following:

1. To define and describe the present system for health care delivery on Ward 51.
2. To determine acceptance level of the present care delivery process among physicians, nurses, and administrative personnel.
3. To evaluate the disadvantages of the present method.
4. To provide the manager with a guide which will indicate functional areas that need improvement in productivity to reduce resource consumption.

Criteria

Identification of functions which inhibit or facilitate the health care delivery process on Ward 51 should accomplish the following:

1. Conserve manpower resources
2. Ensure timely, appropriate and responsive treatment to the patients.
3. Fulfill mission requirements.

Limitations

The limitations of this study were these:

1. Observations and interviews were limited to one ward.
2. Serial workload data were unavailable for a 12-month period.
3. No other medical facility within the Army uses the Unit Administration Concept in hospital administration and as a result no comparisons can be made.
4. Retrospective outcome audits were unavailable for review.

Assumptions

The assumptions of this study are these:

1. The organizational structure of the Department of Nursing will remain essentially the same.
2. The unit administration structure as presently functioning will remain essentially the same.
3. Nursing care provided to the inpatients on Ward 51 will continue to be essential in the care and treatment of the patient.
4. No additional missions will alter the present system on Ward 51.
5. No decrease in the mission will alter the present system on Ward 51.

Facts Bearing on the Problem

1. Walter Reed Army Medical Center employs the Unit Administration Concept in hospital administration in which all non-nursing duties are accomplished by administrative personnel whose organizational structure parallels medicine and nursing from the operational level to the policy level.
2. Health care delivery is provided in a new 963-bed facility which has been treating patients 16 months. Some of the supporting systems designed to facilitate care have not reached full operational status.
3. The cart exchange system for distribution of supplies and linen on mobile supply carts has become a manual system because of design flaws in the monorail which was designed to transport supply, linen, and food carts from distribution points on the second floor through the interstitial floors to receiving stations.
4. The linen and trash disposal systems which employ chutes on each floor for receiving properly contained bags to transport to the second floor disposal point have malfunctioned, creating the need for manual transport systems.
5. The move into the new facility coincided with full implementation of the Unit Administration concept and systems failures.

Research Methodology

A review of the literature was conducted to determine present philosophy and guidelines for organizing nursing services and administrative support services in the delivery of inpatient health care.

Interviews were conducted with the Chief, General Pediatric Services of the Department of Pediatrics, and the Senior Clinical Coordinator on Ward 51 to determine specific mission requirements, hospital policies, and job descriptions of the employees assigned to Administration and Nursing. Interviews were conducted with the Command Sergeant Major and the Sergeant Major of the Department of Nursing to determine the institutional requirements for career management of enlisted personnel either assigned to or functional operatives of Administration or Nursing.

In order to determine workload variations and work flow patterns, informal interviews were conducted with a representative of each identified position on the unit. These interviews included observation of the activities in progress at the time, observation of traffic flow patterns, communications demands, and patterns of interaction among the staff.

A survey questionnaire designed to quantify the extent and severity of the problems, or conversely the degree of satisfaction with the operation of the services was administered to each of the functional groups involved in providing health care delivery on Ward 51.

By using these methods, the health care delivery process was evaluated in terms of structure, attitude, and process measures of performance.

Literature Review

Review of the literature concerning the performance of specific subgroups of people within the hospital organization reveals that studies primarily focus on the interactions between physicians and nurses or physicians, nurses, and patients.² Literature which includes administrative personnel in a subgroup generally tends to be discussion of nursing functions.^{3,4} Discussions of the administrative functions include nursing and medicine as components of the organizational structure, but do not address the interactive nature as part of performance measurement.^{5,6} Carey says that unit management consists of an administrator, nurse coordinator, and physician manager who are responsible to see that hospital operations are consistently responsive to patient needs.⁷ In the absence of documentation of performance evaluation of a subgroup which included unit administration, nursing, and medicine as three identifiable interactive disciplines on a unit, management literature was reviewed.

Levinson describes events which have required new modes of administrative behavior which now place a premium on administrative skills. These events include: (1) a realization that administration cannot be separated from treatment; treatment is significantly affected by administration, (2) the managerial role has centered around identification with the leader, not administration, and

(3) there has been a shift away from traditional and historic modes of structuring service institutions.⁸

Of the management skills required of health care administrators, none is more valuable than a systems approach to performance evaluation. Attention must be centered on responses demanded from a logically ordered production function with the view of minimizing system error and either improving or increasing system output.⁹ William G. Scott, writing on organization theory, has said that machines and processes should be designed to fit psychological and physical properties of men, rather than the reverse. Scott also calls this interactive production system "structure," which he defines as the logical relationship of functions in an organization, arranged efficiently to accomplish objectives.¹⁰ In looking at structure from a perspective of multiple inputs, a varying processing operation, and outputs which are difficult to quantify, measurement of the performance is seen as a staggering responsibility, particularly in a teaching hospital.

Accomplishing the patient care objectives in the health care delivery process requires the manager to be knowledgeable of differentiation, integration, and coordination levels among the providers. Differentiation, as used by Lawrence and Lorsch, and as defined by Baldwin is the difference among managers in different major departments within the organization in their cognitive and emotional orientation.¹¹ Integration is defined by Baldwin as the quality of collaboration that exists among departments required

to work together in order to achieve objectives.¹² Coordination is defined by Georgopoulos and Mann as the extent to which independent parts of a system function in relationship to the needs and requirements of the other parts.¹³ The manager, therefore, will be aware of the ability of the interactive parts to function based upon their orientation, degree and extent of working together, and recognition of the particular requirements of the others.

After looking at the principles involved in the health care delivery process, one must review the setting in which they practice. Episodic tertiary care facilities have provided the clinical laboratory for a variety of research efforts in management practices, with significant findings. These findings have been evaluated, adopted, and have become part of the data base for health care administration. Georgopoulos and Mann describe the hospital setting as one which: has little control over workload; relies heavily for internal coordination on members' motivation, actions, and voluntary adjustments; and has a workload whose nature and volume are variable and diverse, not amenable to standardization.¹⁴

Within this framework, it is necessary to evaluate the organization's formally defined relationships among and between disciplines. Hospitals still retain autocratic and bureaucratic structures which stress complete identification of functions that are subsequently assigned to a specific discipline. With the changing roles of providers as a result of increasing technology and also in response to definitions of practice, the health care delivery process remains

difficult to separate and assign. The proliferation of specialties within the health care field further complicate this process. The absence of a single line of authority, necessitated by both administrative and medical controls, makes formal coordination difficult; complicates communications, discipline and problem solving; and allows for situations in which members take orders from more than one boss and it's not clear where authority, responsibility, and accountability rest.¹⁵

Argyris finds an all too frequent tendency for organizational policies to be counter to normal needs of a mature adult at a number of key points.¹⁶ He discusses seven developmental stages in reaching emotional maturity which must be recognized by the manager. Emotionally mature people conflict with rigid organizational policies, and do not perform at desirable levels for the benefit of the institution. Appelbaum says that valid motivational changes only happen when the employee learns that the environment has changed or that previous conceptions were inaccurate. This is affected by the slow emotional growth and development process, and it is only an incidental event when a manager affects changes in subordinates.¹⁷

The persistent theme in a review of quality assurance programs has been that there are five basic essentials to assessment. These include:¹⁸

1. An organizational structure for assessing quality.

2. Establishment of criteria or standards against which quality is assessed.
3. A routine system for gathering information.
4. Assurance that data is a representative sample.
5. Methods for instituting corrective action.

Indices which are useful in measuring some part of the quality of care, and are accepted because of cost factors, lack of universal definitions and agreement on semantics, or availability of documentation, are superficial at best: (1) patient response, (2) opinion of the medical staff, (3) quality of the technical staff, (4) Joint Commission on Accreditation of Hospitals data, (5) morale surveys, (6) attitude surveys, and (7) the presence of quality assurance programs.¹⁹ These indices reveal that measurement of the quality of the output of the health care delivery process is still in a stage of infancy. Some measures must be developed which differentiate between substantive and adjective functions of health care organizations.²⁰ Pfiffner and Sherwood define substantive functions as those that must be done and done well in order for an organization to achieve its goals, while adjective functions facilitate carrying out of substantive functions.

Of the functions performed at the unit level, little is apparent in the literature regarding the physician's contribution to unit management. He is discussed in terms of the focal point around which nursing and administrative personnel design their activities. Both quantitative and experimental data, however, have defined the

interdependent relationship of nursing and support services.²¹
Nursing assignment patterns have evolved from the case method
employed in the early years of the profession, through the task-
oriented functional pattern to the team pattern in which the
nurse guides a group in a democratic integrated team, to the
current pattern of primary nursing care.²² Primary nursing
evolved in direct response to efforts to reduce cost by better
use of human resources while retaining quality care. This
pattern of care puts the Registered Nurse at the bedside to
implement care and assume personal, direct responsibility and
accountability for that care.^{23,24} As Alfano says, it has been
the giving up of direct, intimate bodily care of the patient
that has caused the most harm to nursing.²⁵

It is not possible to look at nursing organizational changes
without giving attention to patient support services. The
evolution of primary nursing has focused attention on the non-
nursing duties performed in the nurse's role as coordinator of
patient care services. In order to permit the nurse to devote
time to direct patient care, it was necessary to develop a
mechanism for accomplishing the indirect care functions which
do not require nursing expertise. Reallocation can be
accomplished in either of two ways: (1) the nurse retains input
into the operations, but individual functions are reassigned to
originating departments, or (2) the nurse relinquishes control
to an integrated unit management organization designed to perform
all the administrative functions at the ward level.²⁶

Development of the unit management or unit administration concept is based upon transference of the functions of logistics support, patient administration, communications, housekeeping, personnel management, and budgeting from nursing to trained administrative personnel. ^{27,28,29,30} Once this is done, re-evaluation of the nursing process and the organization of nursing services may indicate a need for change. Decentralization of the nursing department, eliminating the position of nursing supervisor, and redefining the role of the head nurse are three common end products of this evaluation process. ^{31,32} Few reports deal with the variety of problems resulting in reorganizing and redefining roles in terms of impact on other disciplines and long-term outcomes. Most, however, do retain the head-nurse position as a spokesman for the unit, and as the person who interprets the hospital to the patient and the patient to the hospital. ^{33,34}

Since there was a lack of documentation in the literature of performance evaluations of a group including unit administration, nursing, and medicine at the ward level, this review was directed to organization, management, nursing, and unit administration resources which were applicable to the study. It was decided to analyze the present organizational structure and identify problems by use of an attitude survey in order to identify functions which inhibit or facilitate the health care delivery process specific to Ward 51 of Walter Reed Army Medical Center.

Organizational Plan

This chapter has discussed a study which was requested because of the perceived existence of an unacceptable performance plateau on Ward 51 of Walter Reed Army Medical Center. The objectives, criteria, limitations, and research methodology of the study were presented, along with a review of the literature.

Chapter II will describe the physical setting, the health care providers, and an assessment of the present system to include an attitude survey, interviews, and observations.

Conclusions and recommendations will be set forth in Chapter III.

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CHAPTER II

DISCUSSION

Description of the Physical Setting

Ward 51 at Walter Reed Army Medical Center is a fifty-four bed Pediatric Ward. The age of patients on the unit ranges from infancy to adolescence, with the upper age limit established at 18 years of age. All medical specialties are represented on this ward with the exception of Renal Transplant Service and Thoracic Surgery Service.

The ward is contiguous to and located between Neurology, Ward 52, and Neurosurgery, Ward 58, and is approximately 50 yards from end to end. The unit is designed with twelve single rooms, seven two-bed rooms, and seven four-bed rooms, in a double corridor arrangement surrounding a central core utility area. The physical layout is depicted in Figure 1, Appendix B.

The average census by month, taken from official manpower documents covering the period of February 1979 through January 1980, is depicted in the chart Average Monthly Census--Ward 51, Figure 2. The census ranges from a low of 38 to a high of 45 for this 12-month period, with the lower census being most noticeable in the summer months--June through August. The September peak was not sustained, and the census leveled off at a lower average (38) than the first four months of the period (44).

The patient mix is an ever-changing variable on this unit.

Figure 2. AVERAGE MONTHLY CENSUS WARD 51

February 1979 - January 1980

February 1979	45
March	44
April	44
May	44
June	39
July	38
August	38
September	42
October	40
November	39
December	38
January 1980	38

Average 41

Source: Official Manpower documents, Department of Nursing, Walter Reed Army Medical Center.

The three primary classifications of patients are: babies, or infants up to toddler stage; children from toddlers through school age; and adolescents. The number of patients in each classification changes continuously, altering patient care demands with each change. The age and size of the patient are two of the indicators which require decisions to be made regarding bed assignment and allocation of provider resources.

Another variable which must be considered is the acuity of care required. Because this ward is part of a Medical Center which is a teaching hospital, patients are admitted with multiple medical problems which require concentrated care. The demand for care ranges from custodial care for patients requiring diagnostic workup to intensive nursing care for seriously ill patients.

Description of Present System

Health Care Providers

Physicians:

Medical care on Ward 51 is directed by physicians under the supervision of the Chief, General Pediatric Service, Department of Pediatrics. Since the Department of Pediatrics has a graduate medical education program, there are house officers at each training level on the ward, as well as staff physicians. The Service Chief reports to the Department Chief who is ultimately responsible for the care provided; therefore, a functional organization chart would reflect a simple vertical structure as demonstrated on the Functional Organization Chart--Medical Services, Figure 3, Appendix B.

Nurses:

Nursing care is provided to the patients on this ward by a staff composed of 15 professional nurses and 22 paraprofessional personnel. Table 1, Appendix C shows the personnel allowances as of February, 1980, for nursing personnel of this ward, reflecting the recognized numbers needed, the authorized numbers, and the actual numbers of personnel in each descriptive category. In addition to the authorized staff, nursing students are performing clinical duties on the ward. On Tuesdays and Wednesdays, ten students from Catholic University are present, and on Thursdays and Fridays there are eight from the University of Maryland. Also present on the unit are two to four 91C students in Phase II of their training program.

The decentralized nursing organizational structure which supports care on this, and all other units in the hospital provides for continuity of care, professional accountability, and an appropriate utilization of nursing professionals in direct patient care activities. The structure is designed to support a pattern of nursing care delivery which combines elements of team nursing and primary nursing. In this pattern, the diverse skills of the team members are guided by the Registered Nurse and the team takes care of a patient or group of patients from admission to discharge. Decision making in this pattern is facilitated by a horizontal consultation with peers rather than a vertical formal organizational structure. Since professional nurses in this pattern are direct patient providers, the pattern relies upon the existence of administrative personnel to manage the variety of time-consuming non-nursing tasks formerly done by nurses.

The nursing personnel on this unit are divided into three teams to coincide with the geographic areas assigned to patients of the three primary age groups on the ward. Team A manages adolescent patients, team B manages babies, or infants, and team C manages children who are toddlers and school age. Approximately 14-16 beds are identified for adolescents, and these are the 2 four-bed rooms and 3 or 4 two-bed rooms on the end of the ward near Ward 58. The infants are centrally located in the 14-18 beds which include the seven single bed rooms and

the four-and two-bed rooms on each side. The children occupy the remaining 21-33 beds as demonstrated in Figure 4. Appendix B.

The staffing ratios for nursing care on this ward are listed in Table 2 Appendix C by ideal minimum and barely safe minimum standards as established by national professional organizations governing this specialty. These standards are compared to the actual staff ratio, calculated on the number of personnel scheduled per shift regardless of status, and a 98% occupancy rate.

The nursing organization structure which supports care on Ward 51 is composed of the following:

1. Area Coordinator. The incumbent fulfills the administrative requirements of the Department of Nursing for the fifth floor of the hospital, serving as the focal point of all coordination between nursing and the administrative support areas.

2. Clinical Coordinator. The incumbent is responsible for the quality of patient care in Ward 51. Supervision and coordination of patient care activities is at the core of the role.

3. Senior Clinical Nurse. The designated Senior Clinical Nurse is a Team Leader with additional responsibility for monitoring total nursing activity.

4. Senior Clinical Specialist (91C). The designated Senior Clinical Specialist is usually a Team Leader with additional responsibility, usually assisting the Senior Clinical Nurse in monitoring the total nursing activity on Ward 51.

A complete list of duties and responsibilities is located in the Department of Nursing Organization and Function, Administrative Policy Guide A-5, dated 26 February 1979. The organizational structure for Ward 51 is demonstrated in Figure 5, Appendix B which indicates the senior clinical nurse's responsibility for Administration being directly related to the nurse Area Coordinator, and the responsibility for clinical nursing care directly related to the Clinical Coordinator. The original design which featured the Area Coordinator and the Clinical Coordinator as peers with different responsibilities was a victim of the Officer Efficiency Report rating scheme. At the present time, the Nurse Area Coordinator is the rater for the Clinical Coordinator.

Administration

A Unit Administrator supervises and coordinates all non-nursing activities on Ward 51, and is directly responsible to the Assistant Administrator, Administrative Services Division, Fifth Floor. The Director, Medical Activities Administration exercises supervision over the management of support services for all seven floors of the hospital through Assistant Administrators. The Medical Activities Administration Directorate has as its mission to provide support services and medical administration to all health care and ancillary activities in the Medical Treatment Facility. The organization for administrative support provides for an integrated structure parallel to the nursing and medical structures from the unit level to the command group.

Logistics functions, the requisition, storage, safeguarding and issuing of supplies, to include linen, are performed by logistics technicians, formally trained in logistics. They occupy a space on the Directorate of Industrial Operations' Table of Personnel Allowances, but once assigned to a logistics technician position they are under the operational control of the Unit Administrator. Technical supervisory liaison is provided by the Logistics Area Manager, a logistics expert who serves as a consultant to the Assistant Administrators, nurses, and physicians on logistics matters.

Dictating Machine Transcribers provide support to the patient care process by typing narrative summaries for all dispositions, adding loose elements to completed charts, analyzing charts for completeness by using a predetermined set of criteria, and maintaining a document tracking system for charts which must be sent out to be reviewed, corrected, or completed. The title of the position was changed to Medical Records Technician, and the position is under the operational control of the Unit Administrator.

The Medical Records Technician. Communications clerks, presently officially called medical clerks, assume the responsibility for: communications on the unit; maintaining medical records in an orderly manner with adequate supplies of appropriate forms; transcribing physicians orders to Therapeutic Documentation form; initiating request forms for

diagnostic studies; maintaining records as required; responding to inquiries of staff, patients, and visitors; and transporting specimens to the laboratory. While this list is not exhaustive, it includes the major factors and indicates the scope of the requirements. This position is under the operational control of the Unit Administrator also.

The fourth functional operative of Unit Administration is the housekeeper. Housekeepers are under the operational control of the Unit Administrator, and receive technical supervision from the Executive Housekeeper.

The personnel in unit administration are assigned to the specific floor and are further assigned to a workplace based upon documentation of workload. The Assistant Administrator, Administrative Support Division on the 5th floor has assigned the responsibility to one Unit Administrator for Wards 51, 56 and 57. The assignment of the administrative personnel on Ward 51 is demonstrated in Table 3 which compares desired staffing levels with actual levels.

Table 3. Personnel Allowances, Unit Administration, Ward 51

<u>Title</u>	<u>Desired Level</u>	<u>Actual</u>
Logistics Technicians	2	2
Housekeepers	4	3
DMT's	2	1
MRT's	4	3

The organization chart which shows the functional organizational relationship for Unit Administration is demonstrated in Figure 6, Appendix B.

A combined functional organization chart which depicts the structural relationship between the three elements of the group which provides patient care on Ward 51 is depicted in Figure 7, Appendix B. Other-than-vertical communications and collaborations are demonstrated by using interrupted lines to connect the providers interactions. These reflect both designed patterns and evolutionary patterns of interactions.

In this system problem identification requires a decision process to determine to which discipline it is referred. Depending upon the person who makes the decision, it will go to either Administration, Nursing, or Medicine. At this point, another decision process occurs. The problem may be referred to either of the other two disciplines, or it may be accepted and end in a resolution. It is possible for a problem to remain within a decision loop and not be resolved as demonstrated by the example in Figure 8, Problem Resolution Flow Chart, Appendix B.

Assessment of Present System

Evaluation of the present system was accomplished in two stages. The first of these was an assessment by attitude survey of perceived operation of the system, and the second was by interviews and observation. An attitude survey which was

administered to physicians of the Department of Medicine at Walter Reed Army Medical Center in 1978 as part of a management study was considered appropriate for this study. Eleven of the questions were deleted since they referenced problems not solvable at the unit level. The remaining twenty-three questions were used in determining the physicians' perceptions of operations as they applied to nursing and unit administration. In order to determine nurses' attitudes, twenty of the original questions were used or re-worded to assess unit administration and some portion of nursing functions, and fourteen questions were used in a like manner for administrative personnel. Copies of the questionnaires are included in Annex D.

Questionnaires were administered to 27 physicians, 37 nursing personnel, and 10 unit administration personnel for a total of 74. Of this total, 62 responses were received, or 84% of the workforce. This response was considered valid to represent the workforce. The questionnaire provided three responses to the questions asked: good, adequate, and inadequate. It was assumed by the Chief of Service and Clinical Coordinator that if 75% of the staff indicated that an item was either good or adequate that the particular item did not require management attention. It would be accepted as a facilitator of the health care delivery process. Conversely, if the totals of good and adequate responses on each item were less than 75% of the total, they would be considered as inhibitors of the health care delivery process. No effort was made to

counter a central tendency response in which all answers are grouped around the center or middle response, or the halo effect in which positive responses to irrelevant situations influence responses to relevant stimuli. An effort was made to avoid introducing bias of the surveyor by selecting an instrument designed and previously administered by a management analyst, and having the instrument administered by representatives of each discipline involved.

The responses to the questionnaire are tabulated by discipline, indicating those items which meet the criteria for facilitating the health care delivery process in each discipline. These data are displayed in Table 4, Physicians Attitude Survey Responses; Table 5, Nursing Attitude Survey Responses; and Table 6, Administration Attitude Survey Responses, located in Appendix C.

Functions perceived as being facilitators:

Physicians

1. Nurse's cooperation in locating supplies
2. Availability of logistics technicians
3. Helpfulness of ward desk personnel
4. Unit dose

Nurses

1. Orientation on hospital procedures
2. Availability of logistics technicians
3. Helpfulness of ward desk personnel

Administrative Personnel

1. Information presented on nursing organization
2. Nursing staff offers assistance with team cooperation
3. Supervision and control of staff

Since all other functions were reported as inhibitors of care, a further measurement of degree of dissatisfaction was needed. In order to define the responses at a manageable level, the Chief of Service and the Clinical Coordinator reviewed the responses from the opposite perspective of the inadequate items. As a result of this review, it was planned that any item in which 50% or more of the responses were in the inadequate category would receive immediate management intervention. These responses include the following items:

1. Availability and responsiveness of housekeepers for cleaning up spills
2. Cleanliness of patient care areas
3. The stock in the individual nurse server
4. The present staff organization on inpatient wards
5. Career development of staff members
6. Patient care under the present system
7. Time for accomplishing required duties
8. Job satisfaction
9. The system for returning and filing laboratory reports
10. Information presented on nursing organization
11. The information given on Unit Administration
12. The orientation given on hospital procedures
13. When the U/A is most needed, his/her availability
14. The responsiveness to orders for new supply items
15. Instructions for how to order emergency supplies

16. Assistance provided by nursing staff during special procedures
17. Nursing responsibility for completion of medical tasks
18. Supervision of paraprofessional nursing staff
19. Nursing staff offers assistance with an attitude of team cooperation
20. The present staff organization on inpatient wards

The second phase of evaluation was by interviews and observations. Interviews with the Chief, General Pediatric Service were centered around the perceptions that things did not work as they were supposed to, and further, that the present decentralized nursing organizational structure with new roles for nurses was not an efficient pattern for health care delivery. Other perceptions focused on the difficulties ascribed to collaborating with unit management. Unit administration was perceived to be a complicated method for accomplishing functions in the health care delivery process, since the Unit Administrator was not available on the unit at all times and he must be contacted to deal with problems involving those people he supervises.

The concentrated efforts by the Chief of the Service and the Clinical Coordinator to resolve problems have not produced significant results in improving the health care delivery process. No objective measure of the quality of care has been applied on this unit, rather impressions are made on the basis of exceptions to standard practice guidelines. Management by exception occurs in a highly charged atmosphere in which harm or potential harm to the patient is recognized. Data gathering

is subjective and retribution is swift. Performance standards by which to evaluate behavior have not been developed.

A degree of frustration and dissatisfaction permeates the ward since no one feels that the patient is receiving the care he needs and expects. The present system is unfavorably compared to the traditional hierarchial nursing organization in which a Ward master and Head Nurse controlled the resources of the unit and were held accountable for the entire operation of the unit. The physicians also feel that the Medical Records Technician is not transcribing orders promptly and accurately.

Interviews with the Clinical Coordinator centered on role definitions and role ambiguities of the present nursing organization. Among the problems identified was the ambiguity of role definitions for Area Coordinators, Clinical Coordinators, and Senior Clinical Nurses. There is a perceived duplication in some administrative duties particularly manpower management, with the Senior Clinical Nurse responding to both Coordinators for the same function. The role of the Clinical Coordinator can be submerged in nursing resource management for prolonged periods, making it impossible to systematically evaluate and promote patient care. The Clinical Coordinator is often the person who makes a referral decision when problems are identified that can't be solved by nursing.

Another problem identified was that the physical plant permits constant interruptions and makes inordinate demands on the staff for custodial care since the unit is not enclosed. There

is a rapid turnover of patients which is coupled with a high admission rate creating a strain on the nursing and administrative staff to keep pace with the medical record and regimen for each. The admission rate for a six-month period from April to October, 1979, averages 10.5 patients per day with a range of 2 to 21 admissions. Of the patients admitted to the ward, some are Intensive Care candidates and great difficulty is perceived in arranging a transfer to the Intensive Care Unit.

The Clinical Coordinator perceived that functions logically expected of administrative personnel are being expected of nurses. Among these functions are terminal cleaning of beds, patient transport and escort service, trash and linen disposal, and obtaining emergency supplies and equipment in adequate numbers for patient care. Equipment maintenance and repair is a function not found to be allocated to a specific discipline; neither administration nor nursing has this responsibility.

A subtle but pervasive problem perceived by the Clinical Coordinator is harassment of the nurses by the physicians. One of the ways in which this is done is using an Unusual Occurrence Report as a tool for punishment or vindictive reactions. Another way is ventilating frustrations and hostilities, which have developed in interactions with others, on the nurses who are captive audiences with minimal opportunity to defend their position. The nurses are in a position of being unable to

control those functions which created frustrations, and are unable to intercede on behalf of the physician.

The Assistant Administrator for the Administrative Support Division on the 5th floor recognized that part of the problems that occur result from lack of understanding of roles and responsibilities of the providers in the delivery process. This lack of understanding leads to expectations which are unrealistic in the ward setting. A functional mechanism exists for accomplishing the health care delivery process on the unit, but all the participants are not operating from the same data base. Problems on the unit which are seen as systems failures may be particularly in the case of the Dictating Machine Transcriber a function of personnel shortages. One space is vacant, and the Civilian Personnel Office is slow in obtaining a replacement. The workload for two people cannot be accomplished by one.

The Senior Clinical Nurse identified role ambiguity and conflict as a problem. Administrative responsibilities to the Area Coordinator and clinical responsibility to the Clinical Coordinator may conflict. The physician's expectation that the Senior Clinical Nurse functions in the same manner as a Head Nurse also leads to conflict. As a Senior Clinical Nurse, the expectation is that she will provide supervision, guidance, and education to junior nurses, yet she must carry a patient load just as they do for at least sixty percent of her duty hours.

Interviews with clinical nurses revealed problems with the mechanics of providing care, such as the fact that nurse servers are inadequately stocked on the evening and night shifts. There is only one supply room on the ward, and it can be entered from only one side since the door to the opposite corridor is blocked. Clean linen is kept in a clean utility room on one end of the ward only, and needed replacements come from a single source regardless of where the nurse is physically located on the unit. An inordinate amount of time is consumed in travelling to obtain necessary linen and supplies.

Interviews were conducted with the Dictating Machine Transcriber whose duties are compounded by the absence of the second one. In addition, preparation of patient records for Air Evacuation has priority over routine duties, and will delay those duties. If the second position were filled, the problems faced here would be negligible.

The Logistics Technicians face a problem of being trained using one set of references while the health care providers use another in discussing supply items. Confusion attends the communication efforts when the logistics technician uses standard supply nomenclature and the health care provider uses brand names. Neither knows what the other is talking about. Another problem is managing an unpredictable demand for supplies based on the changing ratio of age groups of patients on the ward. This influences the availability of appropriate size

beds as well as variety of supplies. The Pediatric formulas and diapers of varying kinds are bulky and have to be stored on the ward. The supply room is crowded, yet appropriate supplies are not always available.

The Medical Records Technician at the Reception Desk feels that he received inadequate preparation for the job he was expected to do, and this created feelings of apprehension while learning on the job. He perceives his functions as being appropriately assigned and competently accomplished. One of the problems he encounters is unrelenting demands during the entire work day. No slack time is apparent in the work distribution; leaving the unit for any reason creates problems that will influence activities for the remainder of the shift. One procedural problem which is an irritant to him is that he transcribes doctors orders to the therapeutic documentation record, initiates paperwork to request diagnostic studies, or initiates action on orders for pharmacological agents, and notes the order with the date and his signature. All paperwork is attached to the chart, it is flagged for review by the nurse, and placed on the counter-top holder for these records. The nurses do not review the charts promptly, and sometimes will look at the orders, initiate treatment, and not validate the transcription. The chart cannot be moved until the orders are validated by the nurse. An observer can conclude from the continuous presence of the charts to be reviewed that orders are not carried out promptly.

The physicians make demands on the MRT for justification of behaviors over which he has no control, for example: a physician demanded an explanation for the failure of a patient to have a scheduled diagnostic test. Requests for consultation to another service are generated on the ward but no mechanism exists to transport them to their recipients. The Medical Records Technician often does this as a courtesy if his workload permits, but physicians continue to expect this service. The restrictive sign-out procedure in Radiology makes it difficult to obtain X-rays, and physicians often ask the Medical Records Technician to obtain films for their convenience, when this is not one of his functions.

The physical work area of the Medical Records Technician is one which was formerly identified as a nursing station. Nurses place items on the desk for appropriate disposal at a more convenient time, cluttering the work area. The Medical Records Technician does not know what needs to be done with the items, and endures their presence until the nurse finds time to remove them.

The general tone of the conversation revealed a general frustration in terms of an inability to accomplish all of the required duties and an inability to perform them with a degree of personal satisfaction in a job well done. There is a consensus that the health care delivery process is impaired, with a strong bias toward reverting to the former hierarchial nursing administration which did not include unit administration.

Observations of work flow patterns generally substantiated the problem areas revealed in the interviews. An evaluation of the appearance of the Reception Desk revealed an untidy work surface and a cluttered work space. The windows behind the desk, as well as the door to the medication preparation room, serve as bulletin boards for nursing announcements, posting time schedules, and displaying art work of the patients. No bulletin board is available in a central location for this purpose. A cabinet which was originally designed to hold x-ray folders sits under the windows behind the desk. Both the Medical Records Technician and the Clinical Coordinator deny ownership, each claiming it is the property of the other. It serves as a repository for items which have no storage place. The counter top serves as additional work space for nursing personnel.

There is no indication to a visitor who one must see for a problem to be resolved. There is no visible directory to locate the functional operatives who control various systems or procedures. The person at the Reception Desk must be approached for directions.

There is no mechanism in use to systematically review medical records for nursing personnel entries to evaluate completeness, pertinence, or accuracy. Episodic evaluation is accomplished by both the Senior Clinical Nurse and the Clinical Coordinator. The Dictating Machine Transcriber routinely checks specific limited criteria for completion before closing out the chart. The ratio of one Senior Clinical Nurse to 14 Clinical Nurses and one Senior Clinical Specialist to 21 paraprofessional

personnel on three different shifts over a seven-day work week indicate that clinical nursing behaviors are not systematically evaluated or supervised.

At the time observations were made on the unit, the patient census had reached the maximum capacity of 54 patients. The work environment was characterized by a great deal of noise, telephones ringing, babies crying, intercom buzzing, and comments exchanged by the staff across several feet of space. There was a great deal of pedestrian traffic moving at a rapid clip down both corridors, presumably in accomplishing patient care. Strollers, baby beds, wheelchairs, and parents added to the traffic. Supplies or equipment occupied space in the corridors, obstructing traffic and creating potential hazards to small children. The staff were observed to smile and speak when passing each other, to stop and answer questions when approached by parents, and to be energetic and enthusiastic in the performance of their duties. A spirit of cooperation was evidenced by the Unit Administrator assisting with inquiries at the desk, the Clinical Coordinator quieting a particularly loud infant, and clinical nurses assisting the physician in obtaining supplies and locating equipment.

CHAPTER III

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Based upon the data and information presented in the preceding discussion, the following conclusions are made:

1. It is essential to recognize those functions which are acceptable and devote attention to others which are not acceptable.

a. It is apparent that the motivation of the staff is a positive factor which facilitates the health care delivery process.

b. Nurses cooperate with physicians in locating supplies and offer assistance to administrative personnel with an attitude of cooperation.

c. The logistics technician is available to both the physician and nurse.

d. The helpfulness of the ward desk personnel is considered acceptable by physicians and nurses.

e. Physicians believe that the unit dose drug distribution system is a helpful addition to the health care delivery process.

f. Both nurses and administrative personnel were oriented to their practice setting.

2. Ward 51 should be treated as an autonomous unit for the purpose of problem solving activity. Because of the layering which occurs in the organizational structure, a time lag occurs

between the recommendation for change and the response to the recommendation. Timing and impetus for change is adversely affected.

3. Expressions of frustrations or dissatisfactions do not coincide with the responses the respondents were willing to make on the questionnaire used in a formal study. Some portion of the verbalized dissatisfaction is therefore presumed to be displacement, or venting negative responses on an inappropriate subject or object. Some may also be function of role expectations; a strong drive for improvement in quality of performance is expected of health care providers. Negative re-enforcement occurs in the practice setting which negates the possibility of achieving satisfaction in job performance even when the job is done well. This study indicates a need for future evaluation in depth of the source of dissatisfaction of health care providers.

4. The physical characteristics of the work setting appeared to influence all the work force.

a. That the ward is contiguous to a ward on either end is a function of the facility design and related fire and safety codes. Traffic flow patterns, including patient transport service, prohibit the addition of physical ward boundaries. An overhead suspended sign at all entry points indicating that one had entered the Pediatrics Ward would serve to inhibit entry traffic, but would not significantly affect exit traffic.

b. Noise levels on the ward are a potential source of tension in the workforce, since the ward appears to be unusually noisy. Noise levels should be assessed with an objective measuring device at a variety of times to ascertain their relationship to established norms, and to provide justification for a noise reduction program.

c. Travelling time to reach linen carts is unnecessarily long. Since there is one linen cart in one clean utility room, there is no apparent reason to prohibit placing a second linen cart in the second clean utility room at the other end of the corridor. This would result in decreased travelling time to obtain clean linen.

d. Travelling time to reach supply carts is unnecessarily long. There are two doors to the supply room, one on each corridor. One of the doors is blocked by a supply cart, effectively eliminating entry. Moving the cart would permit entry from both corridors and effectively reduce travelling time and at the same time removing an irritant.

5. The ward gives an impression of clutter and disorganization which influences the work habits of the staff. There is inappropriate use made of the Reception Desk and its furnishings, as well as the windows behind it. Absence of a staff bulletin board and a key personnel locator board contribute to this problem. Excess supplies and equipment are stored in the corridors.

6. The present nursing organizational structure is not efficient at the operational level on the ward.

a. The Clinical Coordinator should be in a direct line relationship between the Area Coordinator and the Senior Clinical Nurse. This would clarify the lines of authority, accountability, and communication. It would reduce the role ambiguity and the duplication of efforts of the Coordinators.

b. The Senior Clinical Nurse role is neither understood nor accepted. The parameters of the role lead to confusion, and paralyze decision-making efforts.

c. There is an absence of integrative functions; no agent monitors the entire nursing care and nursing management functions. Supervision and nursing management are fragmented in the present system; management by exception is the rule.

d. There is a need for a Head Nurse who would be the point of contact at the ward level for problem solving. The present role of Senior Clinical Nurse would be subsumed in this change. This would provide a recognizable entity to non-nursing health care providers. A Head Nurse with both authority and responsibility for nursing management could resolve the problems unique to nursing, such as timely validation of physicians' orders and work organization patterns, as well as ensuring that nurse-server supply lists are valid so that the logistics technicians will not be held accountable for the nurses' error.

A Head Nurse would be expected to develop performance standards by which to evaluate the staff in conjunction with an energetic educational program for staff development.

Monitoring nurse resources also involves the assessment of patient census and patient mix. This includes the authority to alter the pattern of nursing care delivery to a functional, task-oriented one when the census is high and resources are scarce. It also includes the authority to develop criteria for transferring patients to the Intensive Care Unit which, when staffed and approved, provide guidelines to the staff for better patient management.

A proposed organization chart which reflects the placement of the Clinical Coordinator in a direct line relationship to the Head Nurse with simplified coordination patterns is demonstrated in Figure 9, Appendix B. Under this structure, the Head Nurse serves as a point of contact for problems, referring to the unit administrator as appropriate, relieving the stress on the subgroups of the unit administrator.

Using this organizational structure provides a mechanism at the operating level to allocate responsibility for problem resolution and avoid the loop depicted in the Problem Resolution Flow Chart in Figure 8 Appendix B. The Head Nurse, Unit Administrator, and Physician would collectively determine or assign responsibility to a specific discipline.

A flow chart of Proposed Problem Resolution would demonstrate three alternates to resolution with no potential for looping, or non-action, as is demonstrated in Figure 10, Appendix B.

7. The absence of one Dictating Machine Transcriber seriously impairs the ability to accomplish this function. The accumulation of incomplete work increases at an exponential growth rate, and has already exceeded the possibility for management by one. Vigorous recruiting and placement action are essential to the resolution of this problem.

8. Cleanliness of the Pediatric Unit does not meet acceptable standards.

9. a. The role and functions of the logistics technicians lacks clear definition. The exchange cart system is based upon a predictable demand for supplies and is not amenable to adjustments to daily changes in the patient mix. An unrealistic expectation of the system leads to the erroneous assumption that the system does not work.

b. Bulk formula and diapers crowd the supply room. There is no daily distribution of these items from Materiel Distribution Service.

c. The system for acquiring, maintaining, and storage of medical equipment is not satisfactory to the nursing staff who consider this a function of the logistics technician, not a nursing function.

10. The Medical Records Technician is not adequately trained for the job prior to assignment.

This position is inadequately defined, and is abused by all the staff members participating in ward operations. Functions are

transferred to the Medical Records Technician without consideration for capabilities and limitations or feasibility. Performance expectations are extremely high, but no performance standards exist for the position.

11. Physicians are inadequately oriented to the organizational structure and the policies and procedures which govern practice on the ward, and as a result are unable to function efficiently on the unit.

12. Objective performance evaluation on the ward is hampered by the absence of clear job descriptions and performance standards. Assessment of quality is made on an episodic subjective basis.

Recommendations

1. That the staff reinforce positive behavior in those functions determined to be facilitators of the health care delivery process.

2. That problem-solving be retained at the ward level for more efficient resource use.

3. That a specific study be done to ascertain sources of dissatisfaction of the health care providers.

4. a. That overhead suspended signs be placed at entry points to the ward to limit access.

b. That formal assessment of noise levels be done.

c. That a linen cart be placed in each of the two clean utility rooms.

d. That the second door to the supply room be opened.

5. a. That a staff bulletin board be obtained.
- b. That a key personnel locator board be permanently attached to the wall in a highly visible location.
- c. That the x-ray file cabinet be removed from the Medical Records Technician's work space.
- d. That convenient storage be arranged for excess supplies and equipment.
6. a. That the Clinical Coordinator be placed in a direct line relationship between the Senior Clinical Nurse and the Area Coordinator.
- b. That the Senior Clinical Nurse position be converted to a Head Nurse position.
- c. That the Head Nurse be given authority and responsibility for managing all nursing functions on the unit.
- d. That the Head Nurse serve as a point of contact for all disciplines for problem solving.
- e. That criteria be developed for transferring patients to the Intensive Care Unit.
7. That vigorous action be taken to employ another Dictating Machine Transcriber.
8. That alternatives be developed to the present house-keeping methods.
9. a. That the logistics technicians' job description be clarified.

b. That a realistic working level of supplies be established and that unrealistic demands not be placed on the logistics technician.

c. That the Assistant Administrator negotiate with the Material Division Chief for a daily delivery of bulky supplies.

d. That a consistent reliable mechanism be established for obtaining and maintaining equipment.

10. That a formal orientation/education program be established for the Medical Records Technician.

That a study be done of his functions to document workload and determine appropriateness to the position.

11. That a mandatory comprehensive orientation program be developed for physicians.

12. That job descriptions and performance standards be developed for each position.

APPENDIX A

DEFINITIONS

DEFINITIONS

Decentralized Nursing Organizational Structure refers to a structure in which geographic or service areas are managed by one who is both responsible and accountable for the behaviors defined within predetermined boundaries. Decision making is placed at the operational level.

Team Nursing is a nursing management approach which is characterized by a group of nursing staff members working together using a variety of skill levels to provide nursing care to a group of patients. The team is directed by a Registered Nurse.

Primary Nursing is the most modern of nursing approaches in which a Registered Nurse assumes total care of a patient, or groups of patients, from admission to discharge.

Direct Patient Care Providers refers to that group of hospital staff who provide direct services to patients.

Unit Administration is a management concept which employs formally trained administrative personnel to perform functions not identified as appropriate to clinical professionals, but essential to patient management.

APPENDIX B

FIGURES

FIGURE 3

FUNCTIONAL ORGANIZATION CHART - MEDICAL SERVICES

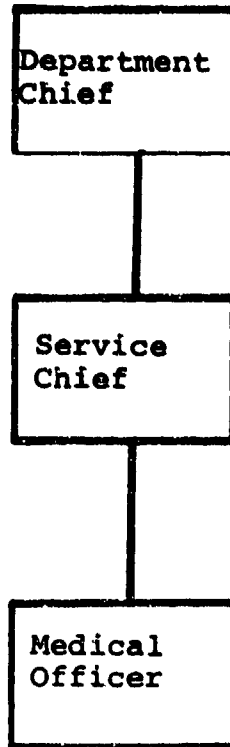


Figure 4. Geographic Patient Distribution

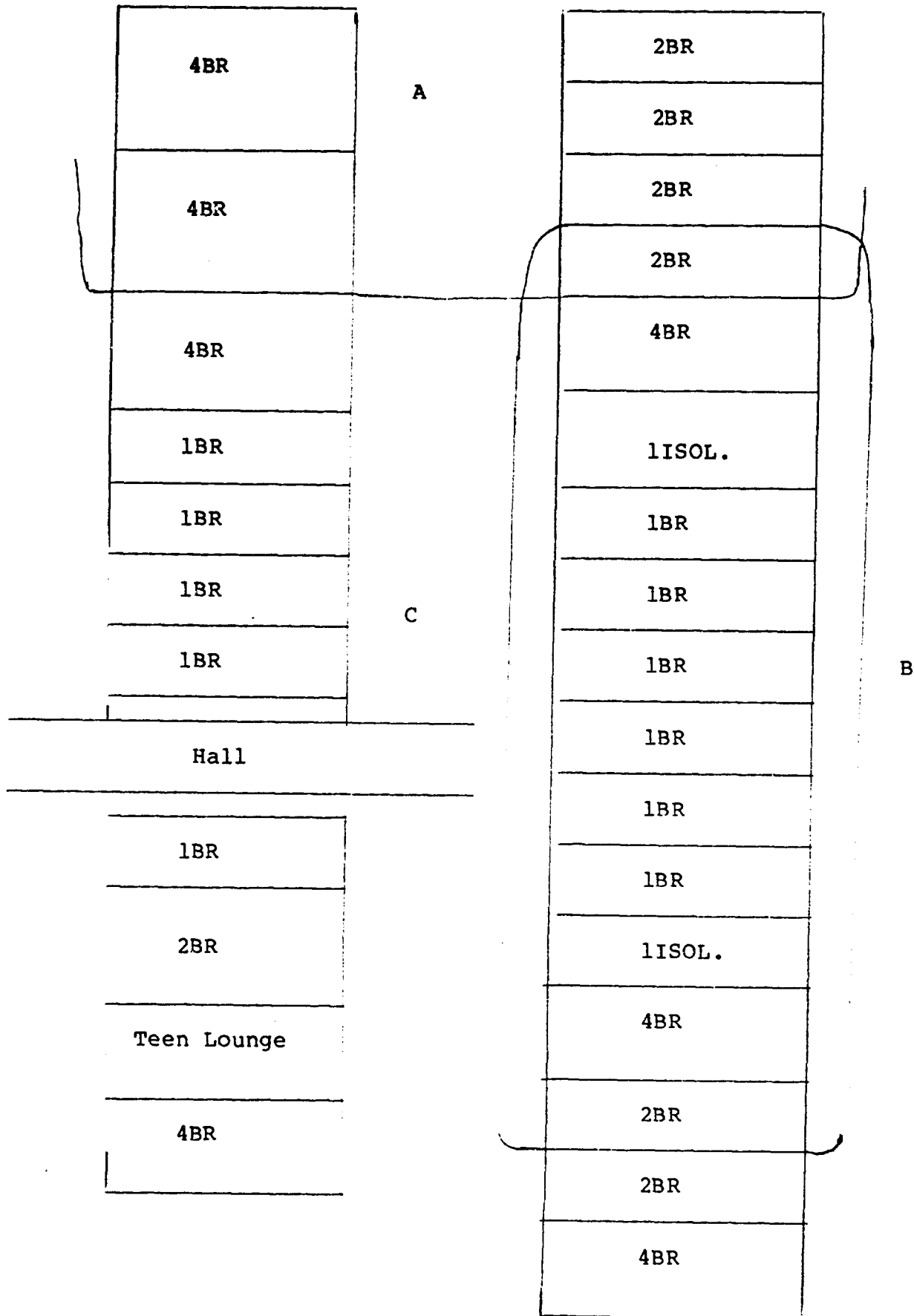


FIGURE 5

FUNCTIONAL ORGANIZATION CHART - NURSING SERVICES

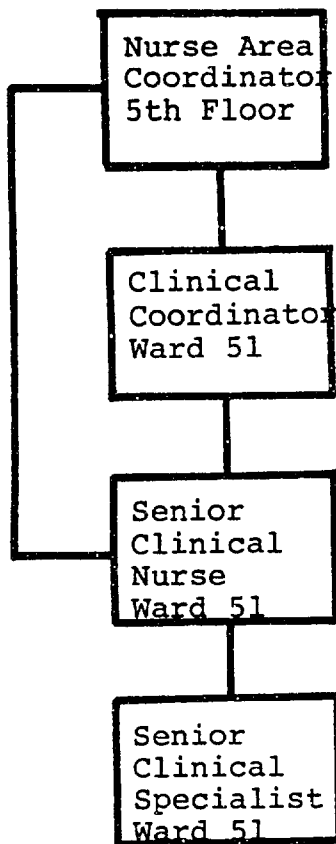


FIGURE 6
FUNCTIONAL ORGANIZATION CHART, ADMINISTRATION

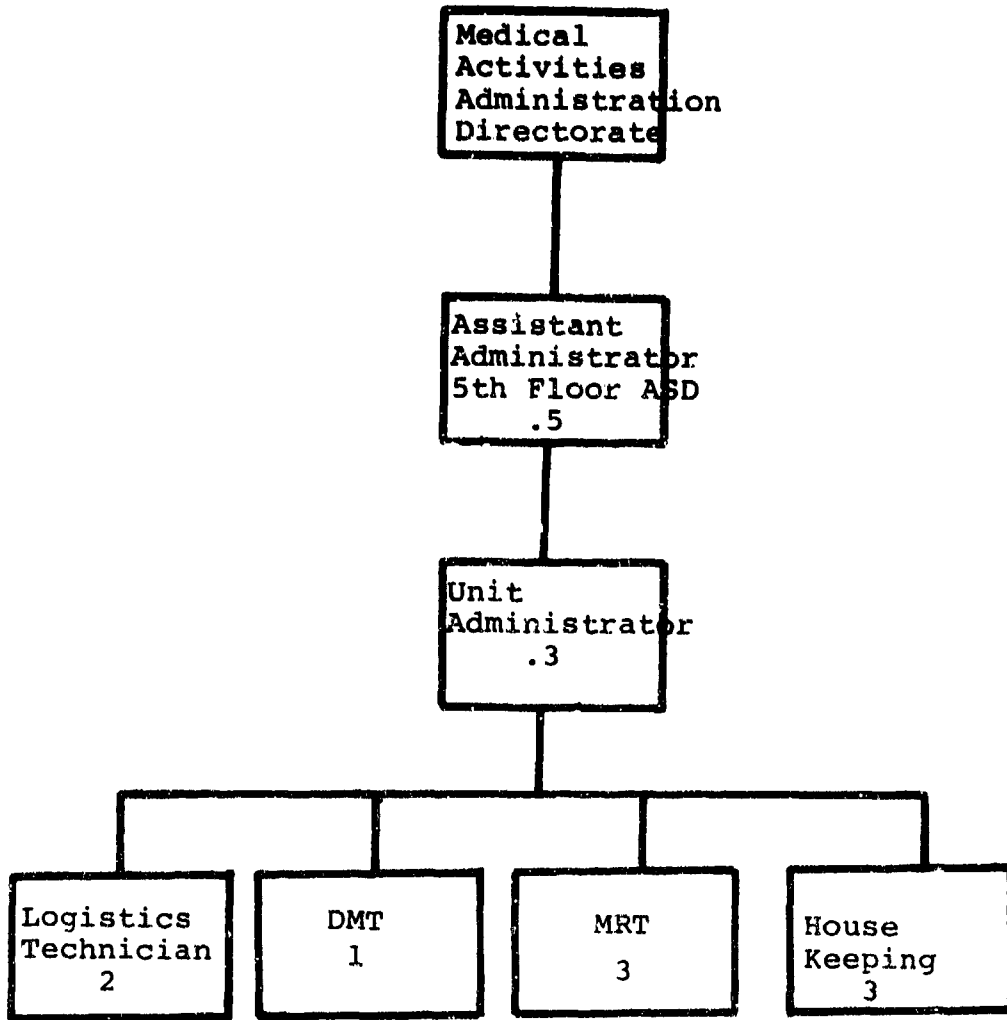


FIGURE 7 COMBINED FUNCTIONAL ORGANIZATIONAL CHART

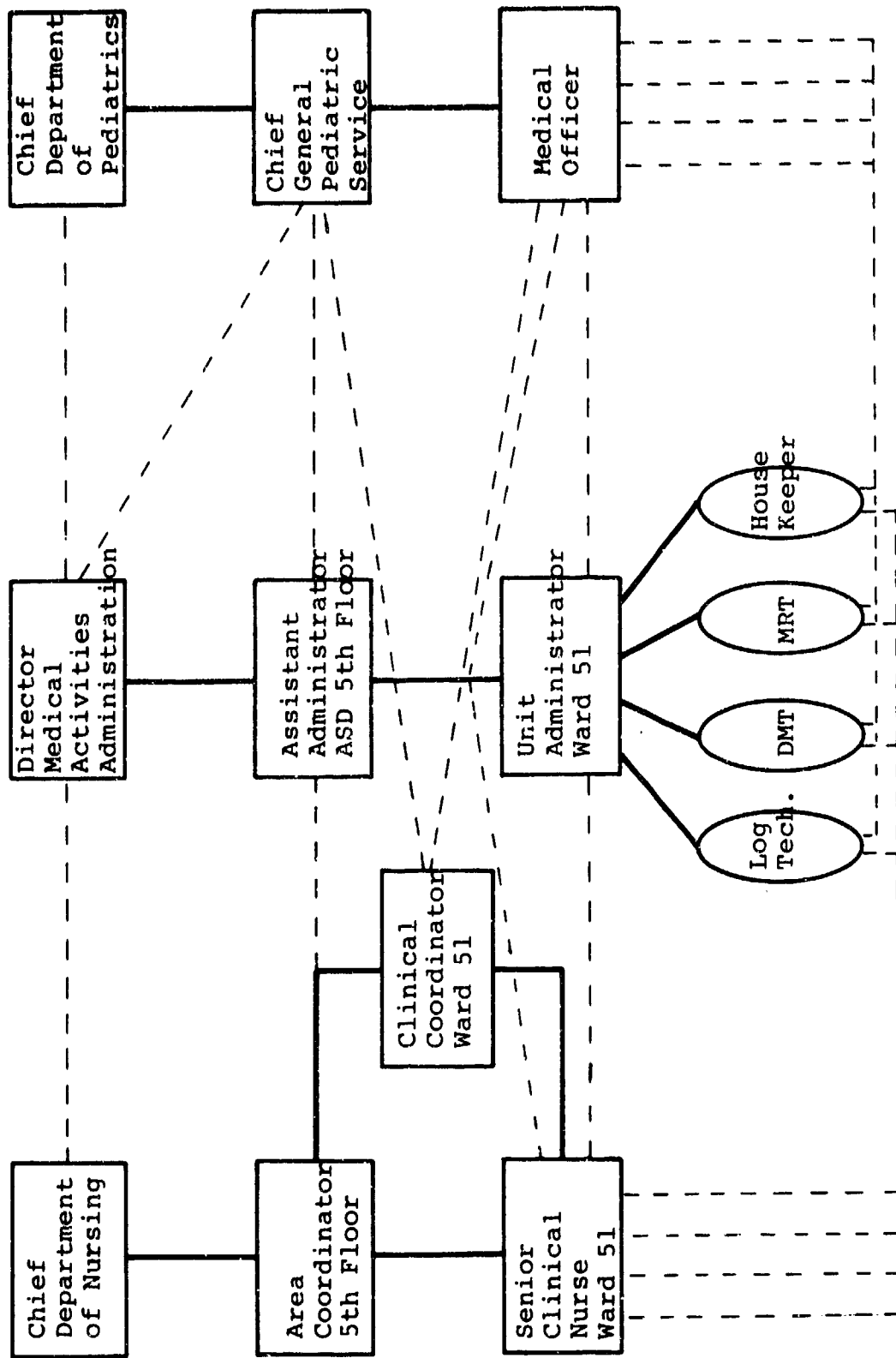


FIGURE 8 PROBLEM RESOLUTION FLOW CHART

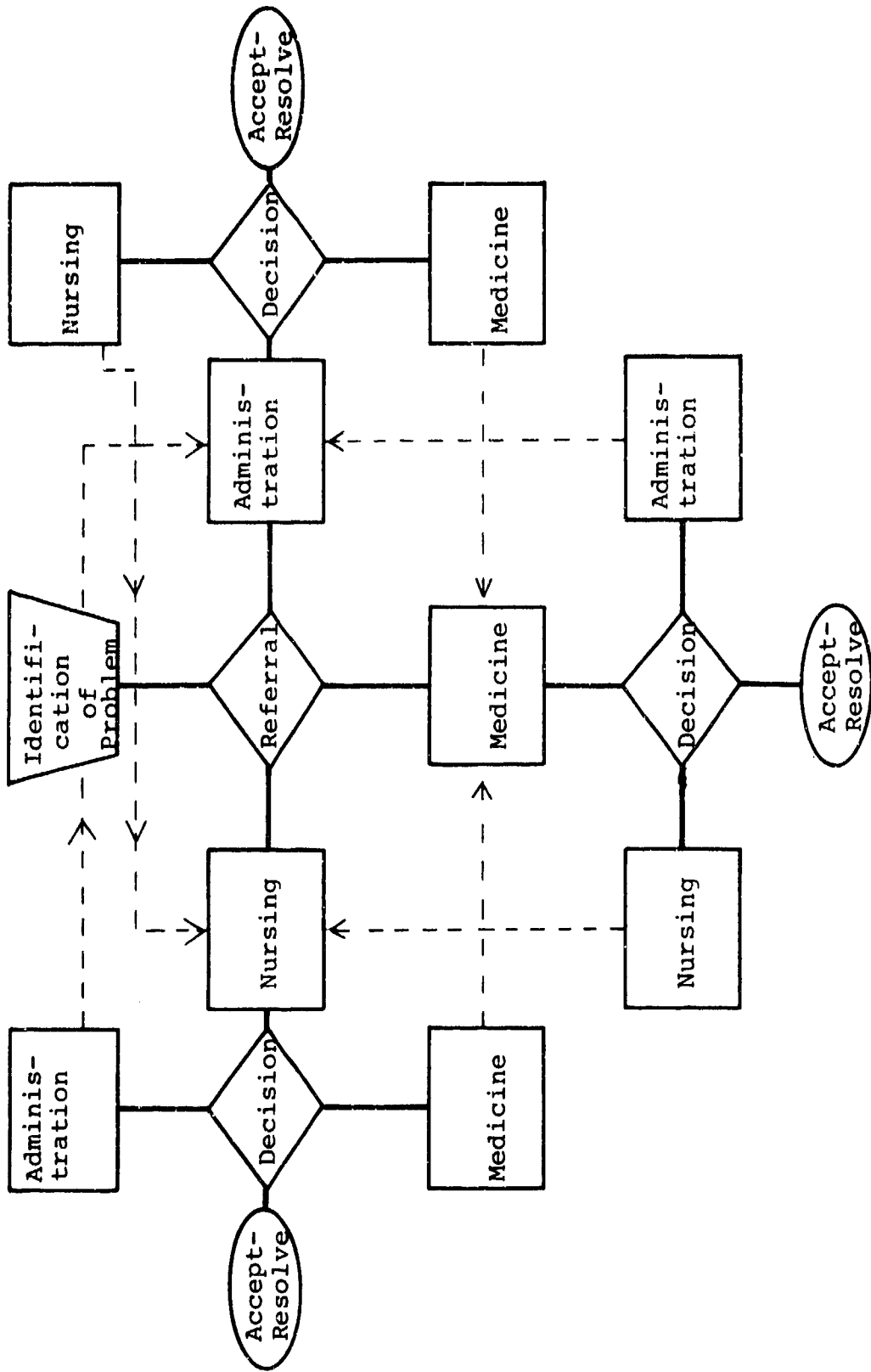


FIGURE 9 PROPOSED ORGANIZATION CHART

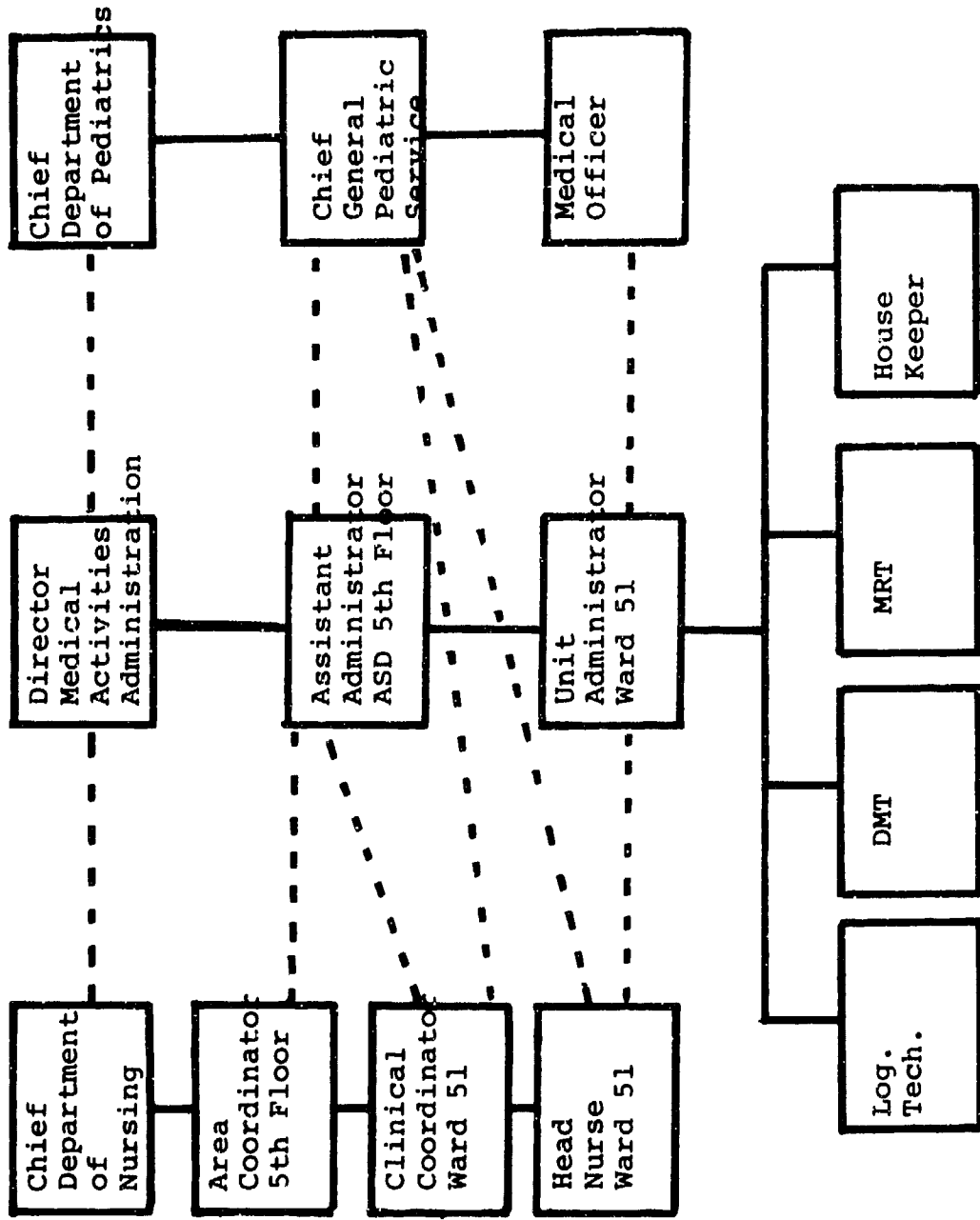
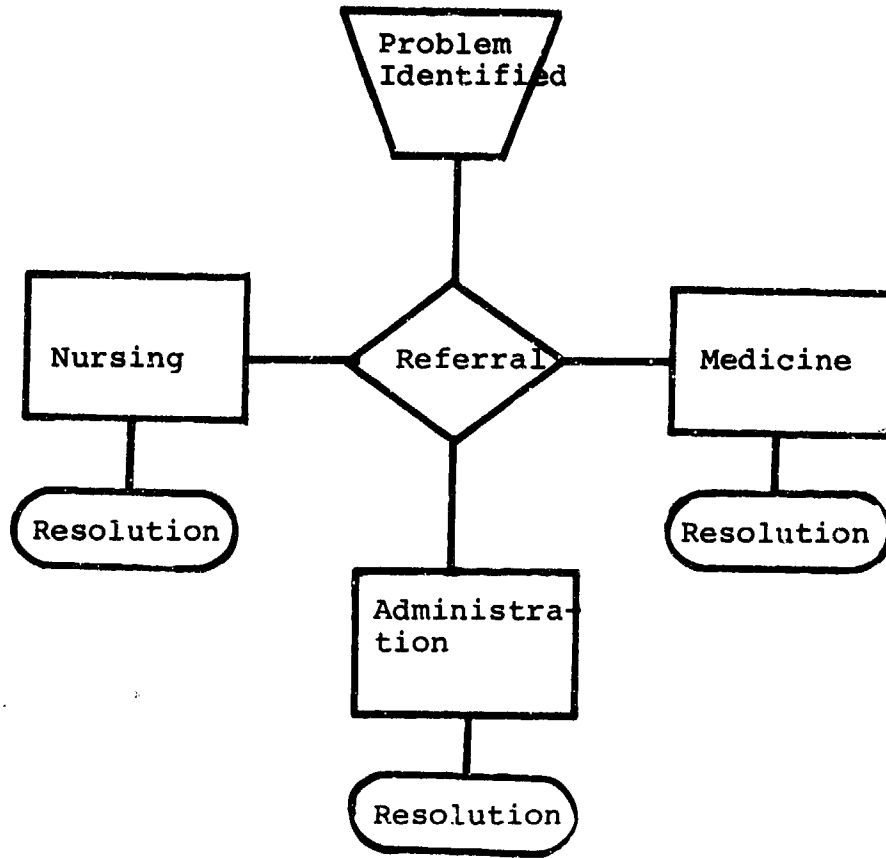


FIGURE 10

PROPOSED PROBLEM RESOLUTION FLOW CHART



APPENDIX C

TABLES

Table 1. Personnel Allowances, Department of Nursing
Personnel, Pediatric Nursing Unit, Ward 51

Position Title	Grade	MOS/ Branch	Req.	Auth.	Actual
Senior Clinical Nurse	0-4	ANC	2	2	1
Clinical Nurse	0-3	ANC	2	2	6
Clinical Nurse	0-2	ANC	5	4	2
Clinical Nurse	0-1	ANC	0	0	1
Wardmaster	E-7	NCO	1	1	1
Practical Nurse	E-6	91C30	4	4	1
Patient Care Specialist	E-5	91C20	4	4	2
Patient Care Assistant	E-4	91B10	3	3	0
Patient Care Specialist	E-4	91C10	4	4	1
Patient Care Assistant	E-3	91B10	3	3	1
Patient Care Assistant	E-2	91B10	0	0	3
Patient Care Assistant	E-1	91B10	0	0	1
Clinical Nurse	09	GS	7	6	5
Nurse	07	GS	7	2	0
LPN/Nurse Assistant	05	GS	7	7	12
TOTALS			49	42	37

Table 2. Staffing Ratios - Ward 51

	Ideal Minimum	Barely Safe Minimum	Actual Days	Actual Evenings	Actual Nights
Adolescents	1:6	1:8	1:7	1:4	1:4
Babies	1:2	1:4	1:6	1:6	1:6
Children	1:4	1:6	1:7	1:7	1:10

Table 4. Physicians' Attitude Survey Responses

Responses						
Questions	G+A \geq 16	Good	Adequate	Inadequate	O Answer	
1		0 (0)	11 (50)	11 (50)		
2		2 (9)	3 (13.6)	17 (77.2)		
3		1 (4.5)	4 (18.1)	17 (77.2)		
4		0 (0)	6 (27.2)	12 (54.5)	4 (18.1)	
5a		0 (0)	9 (40.9)	7 (31.8)	6 (27.2)	
b		0 (0)	4 (18.1)	12 (54.5)	6 (27.2)	
6		1 (4.5)	9 (40.9)	10 (45.4)	2 (9)	
7	X	0 (0)	18 (81.8)	4 (18.1)		
8		0 (0)	6 (27.2)	15 (68.1)	1 (4.5)	
9		1 (4.5)	8 (36.3)	12 (54.5)	1 (4.5)	
10		1 (4.5)	11 (50)	5 (22.7)	5 (22.7)	
11		0 (0)	11 (50)	11 (50)		
12	X	1 (4.5)	15 (68.1)	6 (27.2)		
13		1 (4.5)	10 (45.4)	11 (50)		
14		1 (4.5)	11 (50)	10 (45.4)		
15		0 (0)	9 (40.9)	12 (54.5)	1 (4.5)	
16		0 (0)	12 (54.5)	5 (22.7)	5 (22.7)	
17	X	2 (9)	15 (68.1)	5 (22.7)		
18		1 (4.5)	13 (59)	8 (36.8)		
19		2 (9)	8 (36.3)	12 (54.5)		
20		1 (4.5)	11 (50)	10 (45.4)		
21		1 (4.5)	9 (40.9)	11 (50)	1 (4.5)	
22		3 (13.6)	7 (31.8)	12 (54.5)		
23		1 (4.5)	7 (31.8)	13 (59)	1 (4.5)	
24		11 (50)	6 (27.2)	0 (0)	5 (22.7)	

Table 5. Nursing Attitude Survey Responses

Responses							
Questions	G+A \geq 18	Good	Adequate	Inadequate	No Response		
1		4 (16.6)	10 (41.6)	10 (41.6)			
2		3 (12.5)	9 (37.5)	12 (50)			
3		3 (12.5)	7 (29.1)	14 (58.3)			
4		1 (4.1)	13 (54.1)	10 (41.6)			
5	X	6 (25)	15 (62.5)	3 (12.5)			
6		1 (4.1)	13 (54.1)	10 (41.6)			
7	X	1 (4.1)	19 (79.1)	4 (16.6)			
8		1 (4.1)	12 (50)	11 (45.8)			
9		2 (8.3)	6 (25)	16 (66.6)			
10	X	11 (45.8)	12 (50)	1 (4.1)			
11		3 (12.5)	13 (54.1)	7 (29.1)	1 (4.1)		
12		1 (4.1)	9 (37.5)	14 (58.3)			
13		5 (20.8)	10 (41.6)	9 (37.5)			
14		2 (8.3)	12 (50)	10 (41.6)			
15		2 (8.3)	13 (54.1)	9 (37.5)			
16		1 (4.1)	11 (45.8)	12 (50)			
17		2 (8.3)	11 (45.8)	11 (45.8)			
18		3 (12.5)	9 (37.5)	12 (50)			
19		1 (4.1)	9 (37.5)	14 (58.3)			
20		2 (8.3)	10 (41.6)	10 (41.6)	2 (8.3)		

Table 6. Administration Attitude Survey Responses

Question	Responses			G+A $\bar{>}$ 5
	Good	Adequate	Inadequate	
1	1 (17)	5 (83)	- (0)	X
2	3 (50)	1 (17)	2 (33)	
3	3 (50)	1 (17)	2 (33)	
4	4 (67)	2 (33)	- (0)	X
5	3 (50)	2 (33)	1 (17)	X
6	3 (50)	1 (17)	2 (33)	
7	- (0)	4 (67)	2 (33)	
8	2 (33)	4 (67)	- (0)	X
9	1 (17)	2 (33)	3 (50)	
10	1 (17)	2 (33)	3 (50)	
11	1 (17)	3 (50)	2 (33)	
12	1 (17)	3 (50)	2 (33)	
13	1 (17)	4 (67)	1 (17)	X
14	2 (33)	2 (33)	2 (33)	

APPENDIX D

SURVEY QUESTIONNAIRE INSTRUMENTS

NURSING ATTITUDE SURVEY

Please answer each question in the space which most closely describes your true opinion; GOOD (G), ADEQUATE (A), INADEQUATE (I).

1. The system for returning and filing laboratory reports is _____
2. The availability and responsiveness of house-keepers for cleaning up spills, etc, is _____
3. Cleanliness of patient care areas is _____
4. The information given on Unit Administration has been _____
5. The orientation I was given on hospital procedures was _____
6. When the Unit Administrator is most needed, his/her availability is _____
7. The availability of the logistics technician is usually _____
8. The responsiveness to orders for new supply items is _____
9. The stock in the individual nurse servers is _____
10. The helpfulness of ward desk personnel is _____
11. The inclusion of blank forms in the patients records is _____
12. The present staff organization on inpatient wards is _____

13. My understanding of the present organization structure is _____

14. The definition of roles and responsibilities under the present system is _____

15. Supervision and control of paraprofessionals under the present system is _____

16. Career development of staff members under the present system is _____

17. Job satisfaction under the present system is _____

18. Patient care under the present system is _____

19. Under the present system, time for accomplishing required duties is _____

20. Training for transition to the traditional system is _____

Please check the statements below which best describe you:

1. Male _____

Female _____

2. Age _____

3. My job title is _____

Your comments:

ADMINISTRATION ATTITUDE SURVEY

Please answer each question in the space which most closely describes your true opinion; GOOD (G), ADEQUATE (A), INADEQUATE (I)

1. The information presented on nursing organization has been _____
2. The ease of locating a nurse supervisor when a problem occurs is _____
3. The nurses' cooperation in locating supplies is _____
4. The responsibility for completion of required medical tasks which has been the responsibility of nursing is _____
5. The nursing staff offers assistance with an attitude of team cooperation _____
6. The present staff organization on inpatient wards is _____
7. The definition of roles and responsibilities under the present system is _____
8. Supervision and control of staff members under the present system is _____
9. Career development of staff members under the present system is _____

- 10. Job satisfaction under the present system is _____
- 11. Under the present system time for accomplishing
required duties is _____
- 12. Training for transition to the traditional
system is _____
- 13. The orientation I was given on hospital pro-
cedures was _____
- 14. When the Unit Administrator is most needed,
his/her availability is _____

PHYSICIAN ATTITUDE SURVEY

Please answer each question in the space which most closely describes your true opinion; GOOD (G), ADEQUATE (A), INADEQUATE (I)

1. The system for returning and filing laboratory reports is _____
2. The availability and responsiveness of house-keepers for cleaning up spills, etc, is _____
3. Cleanliness of patient care areas is _____
4. The information presented on nursing organization has been _____
5. The physician's control over patients' care under the present organization is _____
6. The ease of locating a nurse supervisor when a nursing problem occurs is _____
7. The nurses' cooperation in locating supplies is _____
8. The information given on Unit Administration has been _____
9. The orientation I was given on hospital procedures was _____
10. The orientation given to me on my current ward was _____

11. When the Unit Administrator is most needed, his/her availability is _____
12. The availability of the logistics technician is usually _____
13. The responsiveness to orders for new supply items is _____
14. The stock of medications for emergency use is _____
15. Instructions for how to order emergency supplies are _____
16. The stock in the individual nurse servers is _____
17. The helpfulness of ward desk personnel is _____
18. The inclusion of blank forms in the patients' records is _____
19. The assistance provided by nursing staff during special procedures is _____
20. The responsibility for completion of required medical task which has been the responsibility of nursing is _____
21. The supervision of paraprofessional nursing staff is _____
22. The nursing staff offers assistance with an attitude of team cooperation _____
23. The present staff organization on inpatient wards is _____

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