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Humanistic Planning For Pediatric Orthopedic Hospitals

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HUMANISTIC PLANNING
FOR
PEDIATRIC ORTHOPEDIC HOSPITALS

BY
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B.F.A., University of New Mexico, 1973

THESIS

Submitted in Partial Fulfillment of the
Requirements for the Degree of
Master of Architecture

in the Graduate School of
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May, 1978

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ABSTRACT OF THESIS

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HUMANISTIC PLANNING FOR PEDIATRIC ORTHOPEDIC HOSPITALS
ABSTRACT

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In the past, hospital planners have often neglected to consider the needs of those who use the facility. This neglect of humanistic concerns is painfully compounded in an orthopedic hospital where the patients typically have prolonged and repeated hospitalizations. This thesis addresses these fundamental humanistic problems to provide a new awareness for individuals concerned with planning hospitals for people.

Information for the text was gathered through research, interviews, hospital visitations, and actual planning experience with Carrie Tingley Hospital for Crippled Children located in Truth or Consequences, New Mexico. In addition, questionnaire responses from 15 pediatric orthopedic hospitals throughout the United States provide information regarding hospital policies, planning procedures, and physical designs of existing facilities.

The following major conclusions are emphasized in the thesis:

(1) The patients are the single most important planning consideration.

(2) A special awareness and sensitivity to human needs is a necessary foundation for appropriate hospital design.

(3) "User" participation in the planning process is essential to insure that the final product will facilitate user needs.

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PREFACE

While the author of this thesis is an architecturally oriented being, this thesis is not intended to be used solely by architects. It is the author's expressed desire that architects as well as planners, administrators, doctors, nurses, therapists, parents, and concerned laymen will all find this text to be useful and worthwhile. The primary goals of this thesis are: one, to emphasize the need for humanistic planning in hospitals; and two, to stress the importance of user participation in the process.

Architectural planning for a hospital consists of three elements: structural requirements, functional planning, and psychological issues. Structural requirements would include information about the various codes and regulations which govern the construction of the building. Functional planning deals with how special equipment and hospital users move around the spaces provided by the design. Psychological issues address emotional needs and social interaction problems of the users and indicate how they would affect the proficiency of the facility. This thesis will focus on the latter of these categories for several fundamental reasons. First, it was determined that the codes and the equipment for hospitals are in a constant state of flux and would have already been revised making the thesis antiquated even before its completion. Second, a brief survey of hospitals will show

that requirements and their functions have constantly been changed while the psychological problems have remained relatively the same. These problems are the primary reason why hospitals have continued to retain their "institutional" character. No matter how aesthetically pleasing the design may be, if the institutional image continues to exist then the planners have failed to create a positive space. Thus, the physical design and the psychological issues are inseparable.

The idea for this thesis topic originated while the author was working at the Design and Planning and Assistance Center at the University of New Mexico during the 1976-1977 academic year. This organization offers architectural and planning services to non-profit groups who cannot afford professional fees. The project with which the author was involved included the development of a remodeling plan for Carrie Tingley Hospital for Crippled Children in Truth or Consequences, New Mexico. The plans, in their final form, included alterations to an existing but overloaded out-patient clinic, the development of an interior graphic system throughout the facility, and a proposal for a specialized playground for the children. It was during the personal interviews and the research for the project that the author realized how complex the hospital's social system was and how it functioned.

In order to satisfy a growing interest in the subject of orthopedic hospitals the author sought to explore other areas of handicapped concerns. This exploration was accomplished through the selection of pertinent reading materials and actual visitations to facilities for the handicapped. The facilities visited ranged from the Shriner's Burns Hospital in Cinncinati, Ohio, to the

Goodwill Industries plant in Albuquerque, New Mexico. These visitations afforded the opportunity not only to examine the built environment, but also to speak with handicapped persons, hospital board chairmen, hospital administrators, hospital personnel, health care specialists, and parents of hospitalized children.

A questionnaire was developed and distributed during the summer of 1977 in an attempt to find out more specific information about children's orthopedic hospitals. The American Hospital Association lists twenty-five facilities in the United States specifically as "Orthopedic Pediatric Hospitals." Of these twenty-five hospitals, fifteen responded to the questionnaire which can be seen in the Appendix of this thesis. The information provided by these responses proved to be quite informative and enlightening. Much of this information will be referred to in the text of the thesis.

Many of the sections in the thesis are summarized by a list of issues for the review of the reader. Each issue is divided into programmatic and design considerations. The programmatic considerations include suggestions about emotional, psychological, and social requirements of the hospital environment. These suggestions may be used to evaluate the behavioral needs of the proposed hospital and hospital user. The design considerations provide suggested methods of accomplishing the programmatic ideas within the environment. It will be the planning committee's responsibility to insure that these considerations are appropriately addressed in the design and construction phases of the project. It is further suggested

that the combined list of issues from each section can be used as a check list for evaluating the potential for humanistic planning of hospitals.

As a special note to the reader, the author does not wish to imply a sexual bias in the use of pronouns. The terms she or her and he or him serve to reflect the interest of both sexes in this text.

WHAT IS A PEDIATRIC ORTHOPEDIC HOSPITAL?

"Orthopedics" is the medical science which deals specifically with the problems of the human skeletal system. The term "Orthopedics" was derived from two Greek words: "orthos," meaning straight, and "paedos," meaning child. It follows that "Pediatrics" is the branch of medicine which deals with the child, its development, care, and diseases.

A questionnaire was developed to ascertain an overall profile of the typical pediatric orthopedic hospital. The questionnaire was sent out, and fourteen responses were received. The average use of the responding facilities was 43 years old. The peak of construction occurred during a six year period between 1922 and 1928 when six of the hospitals were built. This period roughly coincides with a polio epidemic in this country, and two of the hospitals indicated that the original intent of the hospital was to provide acute care and rehabilitation for polio victims.

The responses also indicated that the hospitals had made many changes and additions to the original structure over the history of the facilities. The most prevalent additions mentioned were operating room suites, auditoriums, out-patient clinics, and classrooms. If one assumes that the physical structure of the hospital reflects the services it provides then several conclusions can be drawn by examining the types of additions listed. The

operating suites and the out-patient clinics indicate that there have been changes in the technology methods in orthopedic medicine. Surgeons today are able to work on many different skeletal problems which could not have been corrected in years past. At the same time, advancing knowledge in orthopedic surgery has made it possible to work with many children as out-patients rather than requiring long periods of hospitalization. The addition of auditoriums and classrooms likewise reflects the growing number of programs and services that the facilities are able to provide. As a result of this progress in the health care field, hospital planners are wise to anticipate change.

The programs of all of the responding hospitals can be divided into two major areas of acute care and rehabilitation therapy. The patients who are placed in the acute care unit are usually in the hospital for emergency care or corrective surgery. This unit, similar to the atmosphere of a library, is typically very busy but subdued. The hospital personnel are rushing around trying to perform the numerous tasks required of them and, at the same time, are taking extreme caution not to disturb the resting patients. The patients, parents, and friends in this area are all faced with the trauma of an accident or severe apprehension of surgery and the ensuing pain. The second division in the hospitals' services is the rehabilitation therapy unit. This unit usually provides a wide range of services such as physical therapy, special behavioral modification, occupational therapy, and psychological counseling. Mrs. Jean McCaan, R. N., the head of nursing at Carrie Tingley Hospital in Truth or Consequences,

New Mexico, described the concept of the rehabilitation unit as, "This is where we want to get them moving!"[1]

The types of patients seen at an orthopedic hospital are quite varied and often have more difficulties than the orthopedic problem for which they are being examined. Major handicapping conditions in addition to skeletal defects include psychomotor defects, retardation, emotional problems, learning disabilities, speech disorders, hearing loss, and visual impairment. While the orthopedic hospital is primarily concerned with skeletally related problems, many of the patients that come to the facility will have one or more additional problems. The hospital must, therefore, be able to accommodate patients with various handicapping problems.

One relatively recent trend, which can be seen in the medical care profession, is the attempt to work toward more comprehensive care for the patients. "Handicapped children usually require many hospitalizations and many surgical procedures in addition to a tremendous amount of physical therapy."[2] Hospitals are beginning to understand the implications of long-term hospitalization and its effect on the child and are making initial strides toward providing appropriate care beyond the correction of physical deformities. There is a growing sense of responsibility in hospitals not only to work with the orthopedic patients physical problems, but also to give emphasis to their mental and emotional well being.

The hospital is perhaps the most stressful public building type in our modern society. There are few people who go into a hospital without experiencing some form of emotional involvement. The hospital staff, while confronted with normal employment problems

which occur in any large organization, must also work in a profession where personal demands are great and the rewards are few and a long time coming. The parents of the hospitalized child, especially after a traumatic accident has occurred, are confronted with real life and death decisions and the anxiety of not knowing what the future will hold for their child as a result of their decisions. Many parents experience feelings of extreme guilt, warranted or not. Other parents are concerned about siblings left at home or the often catastrophic financial repercussions resulting from a long-term hospitalization. Visitors to the hospital are never quite comfortable because of the social connotations which the hospital has in our society. The hospital is known as the place for "sick people" or the "dying." With this broad spectrum of feelings and concerns coming into play in an environment, it is important to remember that it is the child who has the most to endure.

Ms. Uriel Cohen, an Assistant Professor at the University of Wisconsin, describes hospitalization from the patient's point of view as:

"a process accompanied by a sudden and drastic change in the life pattern, characterized by the substitution of a more or less self-regulated active existence, by an enforced passivity occuring in a subjective state of suffering and ill health; it is a strange, friendless and antiseptic smelling environment, where bodily functions, habitually exercised in discreet privacy, are now exposed to the indignity of open-season inspection, with a concomitant dislocation of economic, domestic, social, and sexual pattern."[3]

These problems are often multiplied for the children in an orthopedic hospital because of the length of time that they are required to stay.

The patient in the rehabilitation or therapy unit would be better described as inconvenienced rather than sick. The sick

child typically has a fever, is nauseous, etc., and simply does not feel well enough to play or move about. On the other hand, the child with orthopedic problems may be slowed up or encumbered by a cast, crutches, or a wheelchair; however, he often feels fine and wants to participate in some activity. The patients in the unit are generally quite active, inquiring, and like most children are highly susceptible to boredom. A major element in the rehabilitation formula is to encourage their natural activity and inquisitiveness. The hospital environment can become an effective catalyst in this complicated healing process. "Richness of experience necessary for child development can be accommodated within hospital walls."[4] Planners and designers should strive to make the pediatric hospital environment one which is theraputic, recreational, and educational.

In order to accomplish this end, it is fundamentally important that the planners understand the children. The hospitalized child with orthopedic problems has his own set of fears, problems, desires, and ambitions which the hospital should accommodate. At the same time the hospital planner is also responsible for providing for the needs of the hospital staff, parents, and even the community. As a result, the planner often is confronted with a tangled web of variables, unanswered questions and unquestioned answers. Programming is a process which attempts to uncover all of the needs of the various user groups and to organize them into a workable and comprehensive format. The information which the program provides can be used as a reference and guideline tool during the designing of the

facility. This process of creating a positive environment is the basis of this thesis.

FOOTNOTES

[1]Interview with Mrs. McCaan, Carrie Tingley Hospital, Truth of Consequences, New Mexico, 1 September 1976.

[2]Nancy E. Hilt and William E. Schmitt, Pediatric Orthopedic Nursing (St. Louis: The C.V. Mosby Company, 1975), p. 8.

[3]Uriel Cohen, Bibliography on User/Environment Interface In Health Care Systems (Council of Planning Librarians Exchange Bibliography No. 367, Feb., 1973), p. 1.

[4]Roslyn Lindheim, Helen H. Glaser, and Christie Coffee, Changing Hospital Environments For Children (Cambridge: Harvard University Press, 1972), p. 1.

HOSPTIAL PLANNING

Richard P. Brickner, in his autobiography entitled My Second Twenty Years, vividly illustrates the creative process through his description of how it feels to write a novel.

> "A novel in the making is, to its author, literally as huge as an ocean no matter how mere a glass of water it may be to the reader, no matter how mere a glass of water it may be. My novel was becoming a new ocean in the world, displacing land of fact. I was competently arranging and controlling the currents, temperatures, depths, winds, waves, colors, horizons, the consequences of this expanding reality."[1]

The contemporary hospital due to its complexity can become as difficult to orchestrate as an ocean. The planning process is a means for systematically organizing ideas and concepts into the "expanding reality" which in its final form may become a new and unique hospital.

The planning process in its purest form is a cyclical process in that evaluation is essential in the beginning and the end of the process. It is often suggested that the following seven steps are necessary for the implementation and success of this process: (1) the initial organization of a planning committee, (2) an internal and external situational analysis, (3) the clarification and specification of operational objectives and goals, (4) the development of alternative courses of action, (5) the selection of an alternative, (6) assistance in implementing the chosen alternative, and (7) a review and post-evaluation of the impact of the chosen alternative

(see Figure 1). In its simplist definition, planning is the "look before the leap."[2]

The need for hospital planning is so obvious that it would seem that this need would not be a critical issue. Judging from the large number of physical problems and sterile environments found even in recently designed facilities, however, it is obvious that the planning process is often incomplete or neglected. The following statement exemplifies many problems which may be found in almost any contemporary health care facility:

> "Over the years courtyards have been filled in, wings have been joined to old buildings, or stories built on top of them. In many hospitals change is continuous--something is always in the process of being added, remodeled, or removed. Every change brings with it a whole chain of shifts as vacated space is filled--and very little of this kind of change occurs within the frame of any sort of long-ranged plan."[3]

Thus, anticipating changes becomes a primary directive in hospital planning. All of the questionnaire respondents indicated that there had been major changes to their facility either in the form of renovations, alterations, or additions. The most common additions mentioned were as follows: operating room suites in six facilities, auditoriums in five facilities, out-patient clinics in four facilities, and classrooms in three facilities. All of these changes would seem to relate directly to programmatic changes offered by the individual facilities. The method by which these changes are accomplished are very important to the overall effectiveness of the hospital.

Thirteen of the fourteen responding hospitals indicated that their facility had some form of committee which was involved with planning physical changes in the hospital. This committee typically

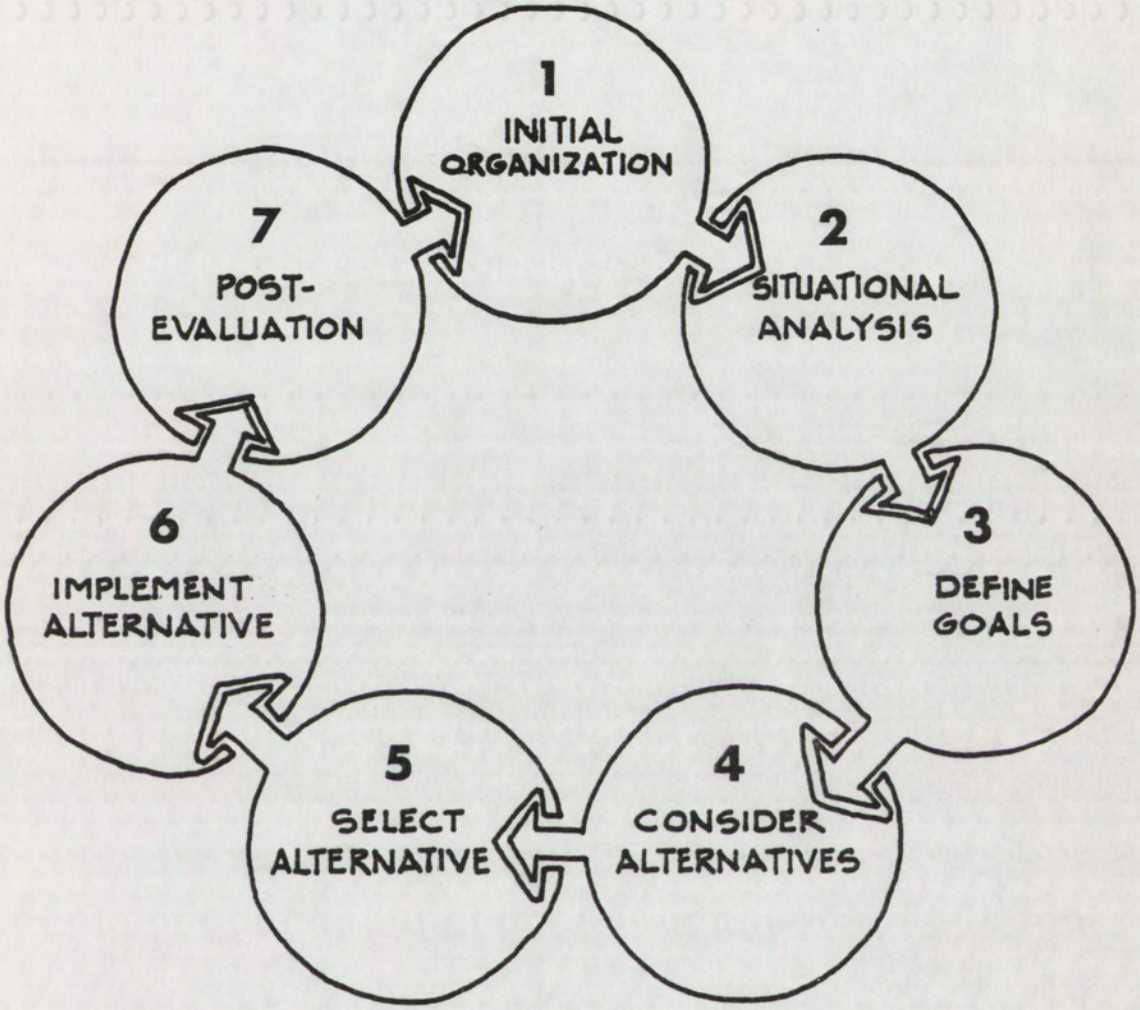


Figure 1

The Seven Steps of the Planning Cycle

consisted of the hospital board members and the administrator. It is interesting to note that only two of these facilities indicated that there was any staff participation at all in the planning process. Further, none of the facilities gave any indication that there was any involvement from the patients, their parents, or the community surrounding the facility. The administrations of these facilities had obviously taken control of the physical planning and were negligent in not soliciting user participation.

Hospitals for the most part are very often controlled by a severely structured system which makes any form of institutional change difficult, if not impossible, to accomplish. "Hospitals are notorious for subscribing to a firm and fixed set of rules and regulations wherein the specific needs of the patients become subsumed to the general need of the institution for control, uniformity, and predictability."[4] Positive and progressive change within such a system is, therefore, impossible without the support and encouragement of the governing body of the hospital. It is very difficult indeed to find one example of a progressive hospital where there is not at least one person who maintains a "power position" which is dedicated to the concept of change for the better. The hospital's administrator need not be totally responsible for new innovations but should at least be open and receptive to new ideas suggested by those persons who live and work within the hospital's environments.

It is often difficult for persons to envision positive change within an environment to which they have grown accustomed. It is quite normal in fact for employees to feel that there is

little if anything to be done to change the environment for the better. "Many administrators and hospital personnel, especially in the acute care field, give absolutely no thought to interior design as a means of theraputic care for the patient."[5] Being creative and having the ability to be creative are often two separate things. Almost every one is creative each day as they select their clothes in the morning, prepare a dinner at night, or even arrange their belongings in a chest of drawers. There is a process and a reason for doing each of these activities. It is the author's belief that, given the opportunity, hospital employees can be as innovative and creative as any other group. The hospital planning committee, which will be defined later in this chapter, provides such an opportunity for creative planning.

In addition to staff involvement it is also essential to encourage participation of handicapped individuals who might view the hospital environment in a somewhat different light. "Many of us do not have direct contact with handicapped people, so when we set out to plan a facility or activity for the handicapped, we tend to exclude the handicapped in the planning process. That exclusion sometimes has disastrous, frustrating, or even humorous results."[6] It is fundamentally important to remember that the orthopedic hospital should be designed for the handicapped. Careful consideration should be given to the removal of all architectural barriers which might impede access; these barriers would include steps, curbs, narrow and cluttered corridors, and heavy doors. It is suggested that a handicapped person can often be extremely helpful in pointing out problems which might have gone undetected

by persons that do not have the special knowledge and awareness that experience provides.

It will often be argued that children cannot be involved in a planning process. However, to design a children's hospital without involving children does not seem very practical. The person who makes this argument against children's participation is actually saying that it would be too much of an inconvenience to work with children. It is relatively simple, however, to find out the child's preferences through personal interviews and questionnaires with which the child can work. Children will often be very honest and at times even over zealous in telling the interviewer their likes and dislikes. Children are happy to tell you what their favorite color is; what they like to do; what they think about the hospital; and where they go to play. (Please refer to an example of a patient preference survey which was used during the planning phase at the Carrie Tingley Crippled Children's Hospital, Truth or Consequences, New Mexico, provided in the Appendix.)

The planning process is a means of preventing architectural guess work on the part of the designer. "Hospital architects and designers still proceed largely by intuition and enlightened guess-work when it comes to the questions of how the hospital environment effects patients."[7] A major advantage of a user participatory planning process is that the designer has the opportunity to simply ask the users for their ideas and opinions on specific issues. This process is somewhat different from the traditional architectural mode of operation. In years past, it was quite customary for the client to come to the architect and

and indicate that he wanted to build a hospital. The architect would then go off by himself to develop plans for the facility. There would be little if any user input into the design by the time the architect was ready to present his new masterpiece.

It is also important to encourage the community's participation and involvement with the facility in the planning process. Mistrust and community paranoia can be very detrimental to the health care facility's attempt to provide a positive image. "The situation calls for the development and implementation of a continuous, highly participatory, long-range planning process in hospitals--a process that is attuned to the broad spectrum of personal health care and specific community needs."[8]

It has been suggested by some health care professionals that "not every disorganized planning process ends in absolute disaster."[9] As a result of the continuing demand for medical facilities, most often some kind of facility is constructed. The patients will adjust to the environment because there is nowhere else they can go. The staff will eventually forget their disappointments and soon improvise ways to work around their new environment. Parents and visitors will continue to find their way, somehow, due to the emotional importance of their visits with the child. Yet, so much can be achieved if the process is done properly from the beginning.

The team approach which is so fundamentally important for the success of the planning committee is not a new concept for many hospitals. The St. Joseph Hospital in Nashua, New Hampshire, for example, encourages staff planning committees for such issues as "in-service education, disaster planning, the hospital's library,

welfare and recreation, the credit union, special events, suggestions and awards, interm surveys, and employee evaluation."[10] The additional step required for the formation of a hospital planning committee would not be such a drastic or difficult move for a facility already practicing this form of participatory process. In addition, there are also many examples of facilities now practicing the team approach to child health care. One study which evaluated the team approach to medicine in orthopedic hospitals suggested that, besides the orthopedic specialist, the team should consist of a psychiatrist, public health nurse, and a pediatrician. The following statement appeared in the study's summary: "All members of the team felt that their joint experiences were helpful as each became more aware of the other's role, established inter-disciplinary communication and working relationships."[11] These same kinds of experiences can be expected during an inter-disciplinary planning process.

THE PLANNING TEAM

The planning team will become the nucleus of the institutional change within the hospital. The committee members will be responsible for working through many tedious hours of conversation, discussing the issues pertinent to the program and design of the hospital. The committee will consist of a group of highly diversified individuals who represent the many special considerations which directly affect the hospital community. The committee members' primary function will be to serve as liaisons to convey information and to gather opinions and suggestions from the various groups they

represent. For example, a committee member from the nursing staff should provide information regarding the nursing issues discussed at the last meeting and a proposal of the discussion for the next. The nursing representative should then seek to find new ideas and suggestions which she could add to the committee's discussion in order to more effectively represent her peers.

It is also a requirement that the representatives work together for the common good of the hospital rather than for their own special interests. It is important to remember that, while seeking representation from all areas of hospital involvement, there is no one structure for each specialty. Each hospital will require a setup which is unique to its own particular method of operation. What is required, however, is that careful thought and consideration be given to finding the most appropriate organization at the inception of the planning process. The size of the committee will also vary with each individual facility. While it is always valuable to include representation from each hospital department, the group may become too large to work effectively.

The user group should represent as many categories of hospital users as possible. This group should include the patients, parents, the community, employees on all levels, and any other group which might be affected such as existing hospitals or educational systems. It is suggested that the members be selected "for their ability to communicate with others, and for their willingness to see both sides of a question."[12] The most important characteristic of the team member should be the positive attitude that the facility can be appropriately planned to insure a good and meaningful

delivery of health care for its patients. It is very unfortunate that user groups of this nature are rarely if ever involved with more than one project of this kind. The committee members, therefore, will generally not know how to read a blueprint, write specifications, or understand money flow during the construction phase. The group may need help in arriving at fair and functional decisions about the project. This is the responsibility of the facilitator.

THE FACILITATOR

The primary function of the facilitator on the planning committee is to keep the activities "on track." The facilitator should be responsible for scheduling meetings, times, and deadline dates. He is also responsible for keeping track of time during meetings to make sure that important issues are discussed in sequence when required. Perhaps the most difficult task, however, is keeping track and controlling the flow of the conversation to insure that the time spent in the meeting is constructive. It is quite common for a planning committee to get off on the wrong tangent or dwell on unimportant issues which are not focusing on the problem. It becomes the facilitator's job to intervene at that point and tactfully guide the members in a more productive direction. The facilitator, in effect, becomes a referee of which Coach Paul "Bear" Bryant of Alabama once said, "The best referee is the one that you didn't notice."

Additional qualifications for a planning facilitator would include organizational and communication skills, and most importantly to be a good listener. It is always beneficial to the process

if the facilitator actively seeks to achieve a good rapport with all of the committee members. The facilitator should remember that he may easily be considered an "outsider" and become the scapegoat if the process does not proceed as smoothly as anticipated. Most of the representatives on the planning committee will have to work together the next day after the facilitator has completed his job and gone. The facilitator, therefore, is a likely target to receive aggression from committee members since he will not work with them as closely nor have any bearing on their working conditions. This can at times be good but can become very detrimental if it begins to alienate people and inhibit the conversation.

The facilitator should also be capable of providing professional advice, technical information, and administrative and analytical support to the other committee members. One way to make sure that expectations are achieved is to see that the committee members have a realistic, organized data base. Information regarding zoning codes, life safety codes, and construction costs may well be as abstract and confusing to the committee members as some of the specialized medical procedures are to the architect. If the facilitator is sensitive to this fact and takes the required time to explain these planning tools in "plain English," he can save himself and the committee a good deal of time and frustration in the long run.

If the facilitator accepts the fact that he is an outsider, he will understand the importance of gaining the confidence of the hospital committee. Before the facilitator explores a new environment he needs to gain some background knowledge of the

field to serve as a foundation for his planning discussions. Suggested methods of obtaining this information include visits to similar facilities, personal interviews with health care specialists, questionnaires and interviews with patients and their parents, and a trip to the local library. The facilitator should have the realistic awareness that this newly accumulated information only forms the foundation and qualifies him neither to judge or condemn. It is also important for the facilitator to be honest with himself and the committee about those things which he does not understand. If a term or a procedure occurs in the course of the planning discussion with which he is not familiar, the facilitator should ask for an explanation. The facilitator is on the committee to give advice about his expertise, but, at the same time, he is there to learn from the committee members who are considered experts in their given fields as well.

"The planner/facilitator should adopt the philosophy that busy people initially view planning as a frustrating, rather non-productive, only slightly tolerable exercise."[13] It becomes the facilitator's responsibility, therefore, to do everything possible to ease the members' participation and make it as exciting and productive as possible. For example, it may be totally impossible to arrange a time which is convenient for all of the committee members to meet during the busy working hours of a week day. The facilitator should be flexible enough to meet with the group at night or on the weekend, if necessary, to make sure that all of the members are able to come to the meetings. It is also important that the facilitator stimulate creativity among the committee

members. "It is the rare administrator, board member, or medical staff member who would not benefit substantially from someone helping him concentrate on the creative process of generating new courses of action and new policies."[14] To accomplish this end the facilitator must perform a "suggestion balancing act." He wants to encourage the creative process by giving verbal suggestions, but at the same time he does not want to lead the committee. A frustrated committee will often latch onto any idea that the facilitator proposes, no matter how inappropriate or unrealistic it is for the particular situation. The experienced facilitator will know that an idea or concept, which is conceived by the group itself, will do far more to develop a good working relationship among the committee members than any "hand leading" idea which is dropped in their laps by an over-zealous or impatient facilitator. The facilitator should work with the committee, not for them. "Planners propose rather than dispose."[15]

The manner in which the facilitator deals with the various organizations in the hospital will be fundamentally important to the success of the project.

> "Typically the planners, who are supposed to develop the design recommendations and carry them to the administrator and board, are put between a rock and a hard place. The staff sees the planner as representing only administrative and board interests. People resent the planner moderating their information, internal communications, and decisions. Recommendations from the planner are seen as commands."[16]

If this happens to the facilitator, the planning process is all but over. The main concept behind the user participation planning method is to encourage free interchange of ideas and information among the committee members. If the members feel as though their

suggestions are being screened or redefined by the hospital's administration this flow of communication is destroyed. On the other hand, the administration at the hospital is probably responsible for hiring the facilitator in the first place. If the facilitator is not responsive to the administration's desires, then his job may be placed in serious jeopardy. The facilitator can save himself a great deal of discomfort if he establishes specific ground rules during his initial job interviews. The ideal situation is to establish himself as a consultant who answers only to the planning committee at the hospital. The administration would not lose all of its control since it will be represented on the committee by a full voting representative. If this type of system cannot be established then it is up to the individual facilitator to find a way in which he can most effectively function within the hospital community (see Figure 2).

It is also helpful if the facilitator is able to be involved with every facet of the medical process within the hospital. The following is a statement by a former hospital planning committee member regarding the architect's involvement on his project:

"The architects handled the problem by first sending a member of their firm to 'live' with us, attend our conferences, and participate in every aspect of patient care before any effort was made to begin the design of the hospital. All of the various support personnel had a chance to say what they would like to see incorporated in what might be the ideal pediatric facility. I now have some ideas about some of the mistakes we made, and certainly some of the benefits that emerged from the plan."[17]

Unless the facilitator is able to undergo such a process, he cannot perceive the assumptions, needs, desires, and constraints with which the committee members are having to deal. The end result will

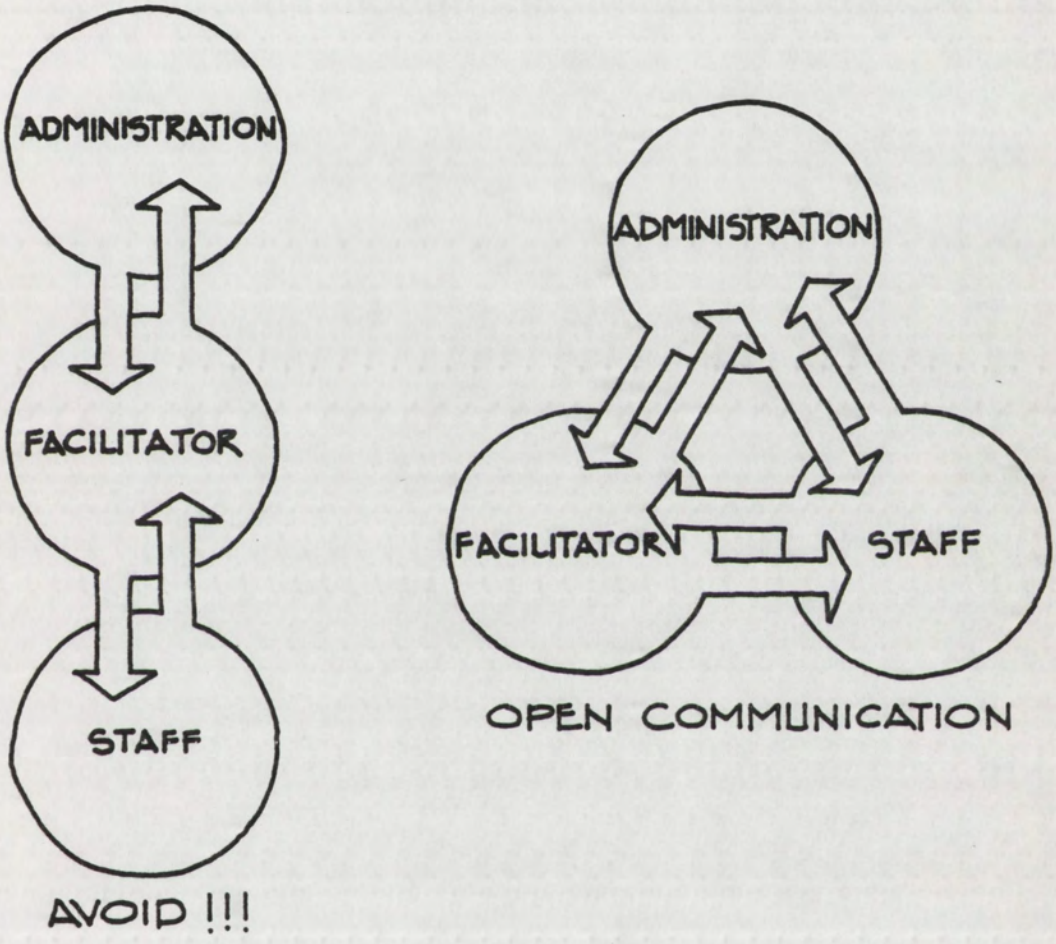


Figure 2

The Facilitator Should Avoid Being Placed in Between the Staff and the Administration. The Facilitator Should Seek to Open Communication Channels.

be that he will not be as responsive as he should be and will not be able to effectively modify the finished product in any way.

Given the responsibilities and the desirable qualities for the facilitator's position, as mentioned in this text, the facilitator need not be an architect. It would, however, be very desirable for the architect or designer to be a part of the planning process if at all possible. If this is not feasible, then strict consideration should be given by the planning committee to hire an architect who is willing and able to work under the constraints and guidelines as developed by the committee. Aesthetic design and responsible design are not necessarily the same thing.

ANTICIPATE PROBLEMS

In order for the facilitator to function effectively within the organizational system of the hospital, he should be aware that there are inherent problems in the system which will directly effect the planning process. Typically, hospitals have a highly segregated network of communication which is a barrier to the free flowing of ideas required for the planning process. The typical hospital is departmentalized in that invisible social barriers develop to the point where employees feel more fraternalistic toward individuals within their own particular field rather than the hospital as a whole. As a result, there is often unmentioned friction and even open resentment between various departments. The hospital which has become committed to the concept of institutional change must address itself to the idea of inter-departmental exchange.

"There is empirical evidence that institutions receptive to innovation also have a high level of communication between departments."[18] The planning committee can be a very important starting point to develop this kind of positive interaction among diversified individuals. One requirement must be that each member of the committee feel that he is free to express his own opinion on any topic without the threat of future repercussions. The committee's members, as previously mentioned, are carefully selected for their special knowledge about elements affecting the hospital community. If they are not free to express these viewpoints and specialized information then the committee will become a rubber stamp for the administration and the hospital will be in worse condition than when it started.

The problem which the facilitator should always anticipate is the often overwhelming resistance to change. There is perhaps a natural tendency in almost all of us to maintain the status quo. Change requires energy, which we are not always willing to give until we become aware that change is critically necessary. When the commitment is finally made to make the change, it is recommended that the changes take place as quickly as possible to insure that the creative energy does not dissipate while waiting for something to happen. Hospital studies which have examined the advantages of swift institutional change have found that "first, it demonstrates as early as possible that the new administration means business. Second, it develops an atmosphere of action and movement. Third, it accustoms staff as early as possible to rapid change as a philosophical principle of management."[19] While these are all

constructive attitudinal changes, they can be costly. There will be some people that will be hurt by rapid change no matter how well planned and tactfully accomplished the change is made. It has been suggested, however, that "those individuals who need too much help and attention in order to negotiate change are probably better off in an organization that is not in sharp transition."[20] After the positive effects of institutional changes can be observed by all of the hospital users, there is usually a period of time in which transition is not so frightening. Dr. Henry Kempe, who is a very active participant in the many ongoing changes at the University of Colorado Medical Center, stated that "nothing really frightens us about change. If we see that a change may be useful, if we see that it could make things easier, we're never afraid to try it."[21] Caution should be given, however, to prevent long delays between changes since the enthusiasm can wane and the same lack of creative thought can reoccur.

The fear of failure is another problem with which the facilitator must deal. While this is perhaps a normal reaction, it can become a serious barrier to effective planning. There are several suggested ways in which the facilitator can address this problem. The first is to have confidence in himself. The confidence which he displays for the committee to observe can be transmitted to each of the members. The facilitator should be aware of this phenomenom with all of the emotions and expressions he presents. The facilitator cannot expect the committee to be creative if he is not creative; he cannot expect them to be flexible if he is not flexible. In short, all he can expect the committee

to be, that he is not, is bored to death. Secondly, he should be sensitive to the individual committee members' needs for reassurance and positive reinforcement. The facilitator does not want to become overly enthusiastic, but he does want to be as optimistic as possible in order to encourage the continuation of the creative process.

TECHNIQUES

The planning process is a circular and continually repetitive process. The process should start with broadly outlined programs and each succeeding stage should become more clearly defined and detailed (see Figure 3). The facilitator should always be careful not to let the committee spend time in developing excessive detail too early in the game. For example,

> "A department head may be asked to develop a list of space needs room by room before any means have been established for fulfilling his requirements. Such premature requests can only prove frustrating to the department head and result in an eventual lack of cooperation when the proper time for such programming arrives."[22]

Most people tend to think in terms of concrete or physical solutions. The development of such formulated ideas should be delayed until more abstract and fundamental issues are addressed and answered.

There are many techniques which the facilitator can use to make the planning process exciting and participatory. It has been suggested that field trips to existing facilities can be a useful introductory method for uncovering discussion topics for future meetings. "It is rare for a professional to visit another establishment without gaining important new perspectives on what was being done at home, or acquiring altogether new ideas of what is both feasible and advantageous to try."[23]

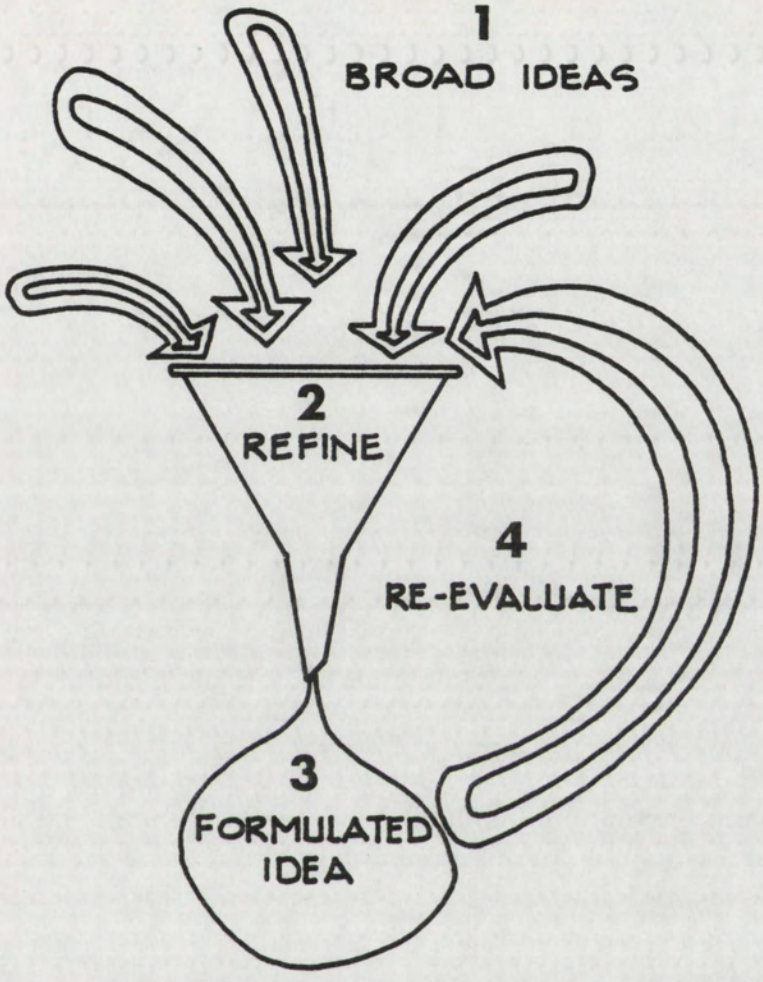


Figure 3

The Planning Process Should Begin with Broad Ideas Which are Refined and Continually Re-evaluated.

Another good introduction to the planning process consists of a hospital organized workshop to discuss issues of special interest. This is also an excellent way to encourage experts in given medical fields to come to the facility. One hospital offered a workshop entitled, "Getting to Know How It Feels." The organizer of the workshop described the events and results as follows:

> "As turn-on devices we used prosthetic aids such as crutches, wheelchairs, and gurneys. These produced some interesting perceptual experiences which were shared by the group at large. Distances seemed three times as long on crutches as they had previously. It took a very long time to go down the hallway in a wheelchair; when one person wheeled another, the speed of passage was very important. Wheeling a person at ordinary walking speed seemed much too fast; the person in the chair felt as if he were a bowling ball going down the alley. Riding on the gurney, a long flat table with wheels, made a number of people nauseous; the ceiling became the visual environment, and the overhead lights went flashing by bang, bang, bang, in a very annoying manner."[24]

The point of the experiment was that even though one's job might be to order wheelchairs or to help children walk with crutches one still does not know what it is like until one has had to do it on one's own.

Gaming techniques can also be used to encourage creative ideas. One such game involves the committee's selection of magazine pictures to describe a special setting within the hospital. Suggested settings would include sleeping areas, learning environments, and play spaces. Through the selection of pictures, the committee members can begin to see the priorities, the concepts behind each special space, and how these spaces differ from each other. This technique provides a means for developing a sense of awareness and opens communication channels among the participants.

When the facilitator feels that a solid awareness foundation has been established, he should move the committee into a more formal and structured process. The most simple method to address a specific issue is to provide a large sheet of paper for the listing of pros and cons on the given topic. The list should be centrally located where all of the committee members can all see and participate. This listing technique is often accompanied by a "no vote" policy. The committee members are forced to resolve the issue through discussion rather than a formal voting process. This can become time consuming, but it is very conducive to communication since the members must commit themselves to the issue.

Bubble diagrams are another way to visually illustrate programmatic concepts and the relationships of different elements within the given environment. This is a process of drawing bubbles around ideas and locating them in the appropriate positions in relationship to each other. The facilitator should be warned, however, that while this may be an effective architectural tool, many people may not be able to understand the abstract relationships of the items being discussed. The facilitator must use techniques that are the most convenient for the client not those most convenient for himself.

When the committee has moved into the phase when documentation of ideas is essential, the facilitator should provide a formal programming process. Architectural programming is the defining of architectural problems to be solved by the eventual design of the facility. This is a method of categorizing all of the information provided by the discussions and research into specific headings.

The suggested headings, a brief definition, and example of each are as follows:

Goals: These are the primary objectives of the design of the physical and social environment and are stated in broad theoretical terms. Example: To provide a visual environment which will offer a large variety of educational experiences.

Programmatic Concepts: These are the abstract ideas concerning the functioning of the environment which is to be designed. They relate to the behavioral effects of the environment on the users and are general and theoretical in nature. Example: The educational opportunities should be maximized. The designer should strive to present educational elements throughout the whole environment and not confine them to traditional "education areas."

Design Concepts: The design concepts implement the programmatic concepts in a physical response. Example: Murals should be effectively used throughout the hospital; in hallways, in public rooms, the recreation room, and the playground. It has been suggested that cultural themes should be used for this purpose when appropriate.

Hard Facts: These are quantitative and/or measurable data which will directly affect the project. Example: The project budget will allow for $800.00 for the purchase of paints and supplies for the graphic designs.

Soft Facts: These facts deal with social, cultural, psychological, and emotional phenomenna. These are commonly termed "gut reactions." They may include observations of emotional reactions to the project which will directly affect the project's chances of success. Example: The graphics should be painted by the hospital users in

an effort to encourage more "hands-on" participation.

Needs: Needs include information about the project such as the square feet or spacial requirements, the cost, the types and amounts of materials required, code restrictions, and time schedules. Example: The graphic elements provided should be painted in the evening or on the week-ends when the clinic is not in operation to prevent congestion.

Problem Statements: These are statements of the unique problems faced by the designer on the specific project. These statements are often the result of conflicts between the facts (hard or soft) and the goals or between two or more concepts. The designer must be aware of these problems before the design process begins. Example: The design of the graphic elements should be child oriented, but at the same time interesting and pleasing to a wide range of ages.

A suggested method for working with these ideas is to use a card listing system. Index cards which are designated as one of the above mentioned headings with specific issue or idea indicated can be pinned to a tackboard where all the committee members can observe. Since it is desirable that this be a highly participatory process, the facilitator should encourage the members to manipulate the cards to the appropriate locations to indicate the relationship between two or more ideas. For example, it is often beneficial to place a concept card under a goal statement to indicate that the concept is a means to accomplishing the goal. While the cards can be moved around, caution should be taken that none are discarded. There will be plenty of time to sift through the information and

decide on its validity and appropriateness at a later time. The facilitator can use the cards after the meeting to help document the group's discussion. The facilitator should not attempt to arrange the cards into a final format, however, until all of the issues are fully discussed and reviewed by the committee.

This type of architectural programming provides the committee with a systematic means of organizing the complex issues of a modern hospital. The reader should note that this format can be used to document all forms of programming necessary for the design and construction of a health care facility. The remainder of this text, however, will address those issues which will deal with emotional, psychological, and social conditions of the hospital environment which will play a significant role in the success of the project. The discussion of these issues should provide a basis on which the more technical decisions about the design and construction should be predicated. If the reader would like to study the other formats of hospital planning, he should refer to the following:

Allen, Whitaker Rex and von Karolyi, Ilona. Hospital Planning Handbook. New York: John Wiley and Sons, 1976.

Greenblatt, Milton; Sharaf, Myron R.; and Stone, Evelyn M. Dynamics of Institutional Change: The Hospital In Transition. Pittsburgh: University of Pittsburg Press, 1971.

Stuehler, George. "The Hospital-Based Planner 'In His Time Plays Many Parts'". Hospitals 50(16 June 1976): 75-6 and 78-9.

HOSPITAL PLANNING SUMMARY

ISSUE: Need for Planning

PROGRAMMATIC: The haphazardous use of space and how it is allocated should be considered. The causes for the frequency of sterile environments in the hospital should be evaluated. The continuously changing programs and services which the hospital provides require a continuous planning process.

ISSUE: Institutional Change

PROGRAMMATIC: The committee will need the support of at least one person who is in a "power position". The hospital's administration should be open and receptive to innovative suggestions and ideas. The planning committee should provide an opportunity for inter-departmental interface, open communication channels, and give the members an outlet for creative thought. The team approach, which is used in many hospitals already, can be a very important step in the planning process. Institutional change should be accomplished quickly in order that the hospital users can adjust to the change as a better way of life.

ISSUE: Who should be involved in the planning?

PROGRAMMATIC: It is essential that the administration be involved and supportive of the planning process to insure its success. Each of the various hospital departments should be represented in the planning process, if at all possible. If the facilitator feels that the group is too large to work with effectively, some changes may have to be made to the structure of the committee.

HOSPITAL PLANNING SUMMARY CONTINUED

Since the facility will be designed for orthopedic patients the planning committee should seek the advice and suggestions of a handicapped individual. The planning committee should actively seek the input from hospital patients. This can be accomplished by patient representative(s) on the committee or through questionnaires and interviews. Representatives from the hospital's community should also be included in the planning process. If at all possible, a representative from the architect's office should be present during the planning of the hospital.

ISSUE: Planning Team

PROGRAMMATIC: The planning team requires a great deal of energy to overcome internal and external apathy and accomplish institutional change. The members of the planning team should serve as liaisons to convey information to the various groups that they represent. This will require good communicative skills. It is very important that each of the committee members be solely dedicated to the common good of the hospital and be able to see both sides of a question.

ISSUE: Facilitator

PROGRAMMATIC: The facilitator's main responsibility is to keep the committee "on track". This includes scheduling, time management, and tactfully controlling the flow of the conversation. The facilitator should be communicative, organized, sensitive, creative, innovative, and flexible. The facilitator should also provide technical

information and professional advice. He should seek to develop a good rapport with the committee members. The facilitator should seek to develop a foundation of information covering orthopedic hospitals: visitations, interviews, questionnaires, or pertinent literature. The facilitator should be aware of the position he holds in relation to the administration and to the staff. He should avoid being placed in between, since he will become a communication block.

ISSUE: Anticipated Problems

PROGRAMMATIC: The facilitator should realize that he will be an "outsider" in the hospital world. The typical hospital has a highly segregated network of communication. If the committee members are unable to "freely" discuss the various issues then the group will become a "rubber stamp" committee representing the views of the administration. There is commonly a great resistance to change. The committee members may begin to show signs of fear of failure.

ISSUE: Techniques

PROGRAMMATIC: Do not move into excessive detail too early. Field trips to existing facilities can open up discussions among the committee members. Hospital awareness workshops can also be effective tools in getting the group into the right frame of mind. Gaming techniques, such as defining an area by magazine pictures, help the creative process. List the pros and cons of an issue on a

HOSPITAL PLANNING SUMMARY CONTINUED

large sheet of paper to encourage discussion. This should be accompanied by a "no vote" policy. Bubble diagrams can be used to visually illustrate concept relationships. The facilitator should be aware that this is an architectural tool and may not be easily understood by the layman. Use the formal architectural programming process. (See text)

FOOTNOTES

[1]Richard P. Brickner, My Second Twenty Years An Unexpected Life (New York: Basic Books Inc., Publishers, 1976), p. 128.

[2]Edie Cherry, "Architectural Programming", Papers presented to programming class at the University of New Mexico, Albuquerque, New Mexico, 1976.

[3]Whitaker Rex Allen and Ilona von Kabolyi, Hospital Planning Handbook (New York: John Wiley and Sons, 1976), p. 1.

[4]Adele D. Hofman, R. Becker, and Paul H. Gabriel, The Hospitalized Adolescent: A Guide To Managing The Ill And Injured Youth (New York: Free Press, 1976), p. 75.

[5]"Therapy Begins With The Room," Modern Health Care 4 (November 1975): p. 16t.

[6]"Planning For Everyone," Trend (July, August, and September 1974): p. 7.

[7]Ian Simpson, "Humans And Hospitals," The Medical Journal Of Australia 1 (26 April 1969): p. 835.

[8]George Stuehler, "The Hospital-Based Planner 'In His Time Plays Many Parts'," Hospitals 50 (16 June 1976): p. 75.

[9]James Falick, David Burdick, and Henry Winkelman, "Planning Can't Replace Money But...," Modern Health Care 5 (April 1976): p. 53.

[10]"Participative Management Gives Employees A Voice In Hospital Concerns," Hospitals 50 (1 July 1976): p. 13.

[11]Katrina Haka-Ikse and James van Leeuwan, "Care Of The Long-Term Hospitalized Infant," Clinical Pediatrics 15 (July 1976): p. 587.

[12]Falick, "Planning Can't Replace Money But...," p. 53.

[13]Stuehler, "The Hospital-Based Planner 'In His Time Plays Many Parts'," p. 78.

[14]Ibid.

[15]Ibid. p. 76.

[16]Falick, "Planning Can't Replace Money But...," p. 53.

[17]Evelyn K. Oremland and Jerome D. Oremland, Effects Of Hospitalization On Children: Models For Their Care (Springfield, Ill.: Charles C. Thomas Publisher, 1973), p. 309.

FOOTNOTES CONTINUED

[18]Milton Greenblatt, Myron R. Sharat, and Evelyn M. Stone, Dynamics Of Institutional Change: The Hospital In Transition (Pittsburgh: University of Pittsburgh Press, 1971), p. 11.

[19]Ibid. p. 5.

[20]Ibid. p. 6.

[21]Carol B. Hardgrove and Rosemary B. Dawson, Parents And Children In The Hospital (Boston: Little, Brown and Company, 1972), p. 80.

[22]Allen, Hospital Planning Handbook, p. 4.

[23]Greenblatt, Dynamics Of Institutional Change: The Hospital In Transition, p. 17.

[24]Robert Sommer, Design Awareness (San Francisco: Rinehart Press, 1972), p. 44.

CONSIDER THE PATIENT

Hospitals have traditionally been considered as a place for the healing of the sick or injured. It would logically seem to follow that hospitals are planned and designed for the care of the patients. It is unfortunate, however, that this has not always been the case. Examination of plans and programs of existing facilities uncovers strong indications that somehow patients' considerations have been left out of the process. Furthermore, one might conclude as stated by Mr. Ronkin, administrator of the New England Sinai Hospital in Stroughton, Massachusetts, that, "Most facilities have been designed for the benefit of the architect, the administrator, and almost everybody except the patient."[1] A brief historical survey will provide supportive evidence to Mr. Ronkin's theory.

Throughout medical history, until the early 1900's, the doctor was inevitably considered to be the focal point of hospital design. There were many attempts to accommodate the doctor's daily activities through the physical design of the structure. It was the contemporary thought that a successful hospital design depended on how well the facility could facilitate the tasks that the doctor must perform and shorten the amount of time required to accomplish these functions. This concept was valid simply because of the shortage of doctors and the need for them to see as many patients as

possible. Today the doctor's time is still a scarce and expensive commodity, but the number of tasks which he must perform has been lessened somewhat by the assistance of other medical staff members.

At the turn of the century nurses began to take a more active role in the care of the patients. The nurses were receiving better training and were able to assume some of the tasks which had previously been accomplished only by the doctor. This role change was accompanied by a shift in the design criteria for the hospital. Designers began to consider the activities of the nurse and how to best aid her routine and schedule. Designs which used the "nursing in the round" concept began to be evident. This design concept involved a centrally located nursing station which was surrounded by a number of patient rooms. This design provided good visual observation of the patients and most importantly considerably shortened the required walking distance to any of the patients' rooms. It is important to mention that all of these efforts were valid at the time, and indeed this design may still function quite well in the modern hospital; however, one should ask, whatever happened to the patients?

The patients were forgotten in the institutional priority shuffle. "Whose priorities are most influential? Those expressed in terms of the needs of the child? Or are the most influential priorities those of the parents, the doctors, the hospital administrators, the nursing staff, etc.?"[2] It is the hospital planning committee's responsibility to consider at all times the child's point of view, the silent neglected. While it is important to keep an open mind to all of the various interest groups in the

hospital system, it is time to restructure the priority system to emphasize "the needs of the patients it (the hospital) serves and not the providers of medical care."[3]

The new emphasis in health care considers the needs of the patient as a "whole" person, rather than simply treating a specific ailment. "It is a false sense of pride if a facility can cure a child's physical ailment but introduces a psychological one."[4] There are indications that hospitals are reacting to a growing feeling of responsibility and that "expert medical care be supplemented with attention to the child's social, emotional, and developmental needs."[5] There are an increasing number of special programs which are being introduced into the hospital structure to facilitate some of these patient needs. Examples of these programs are special behavioral modification programs, educational and occupational therapy programs, counseling programs for parents and patients, and child life programs. It would be a worthwhile endeavor for the planning committee to evaluate these and other programs for their suitability for their particular hospital.

Mrs. Emma Plank, who is known for her work for children's rights within the hospital and is the Director of the Child Life Program at the Cleveland Metropolitan General Hospital, suggests that, "When a child is hospitalized, the hospital has to take on tasks beyond its healing function, tasks which must be accomplished so that the rhythm of life and growth can go on."[6] These tasks which Mrs. Plank refers to should include such things as the patient's comfort, security, and mental well-being. Through

careful study and planning, all of these elements can be included in the physical design of a hospital.

The logical step in identifying the patients' needs rests with an understanding of the patients. To simplify this process, the patients seen in the typical pediatric hospital can be divided into four major age groups: infants, pre-schoolers, grade schoolers, and adolescents. Each age group contains its own readily identifiable characteristics, needs, fears, problems, and goals. Understanding these elements is essential to the successful planning and designing of a pediatric orthopedic hospital.

FOOTNOTES

[1]"Therapy Begins With The Room," Modern Health Care, 4 September 1975, p. 16s.

[2]Evelyn K. Oremland and Jerome D. Oremland, Effects Of Hospitalization On Children: Modes For Their Care (Springfield, Ill.: Charles C. Thomas Publisher, 1973), p. 298.

[3]Milton Greenblatt, Myron R. Sharaf, and Evelyn M. Stone, Dynamics of Institutional Change: The Hospital In Transition (Pittsburgh: University of Pittsburgh Press, 1971), p. 323.

[4]Roslyn Lindheim, Helen H. Glaser, and Christie Coffee, Changing Hospital Environments For Children (Cambridge: Harvard University Press, 1972), p. 12.

[5]Ibid. p. 1.

[6]Emma N. Plank, Working With Children In Hospitals (Cleveland: The Press of Western Reserve University, 1971), p. 1.

INFANTS

Infancy, the earliest period of childhood development, is usually designated as the interval from birth through the age of twelve months. This is an extremely important developmental and formative period in the life of any child. Perhaps the best way to describe the child during this period of existence is to say that he is environmentally vulnerable. "The infant is completely dependent upon the nurturing environment, not only for his physical survival, but for the proper kinds and amounts of stimulation, for protection from over stimulation and for the gratification of his needs."[1]

The needs of the infant are commonly divided into two groups: basic and secondary. Basic needs consist of those elements which are essential to the continuation of life, including food, water, warmth, and sanitation (see Figure 4). The secondary needs of the infant are not necessarily life supportive, but they are critical to insure a growing and thriving existence. These secondary conditions would include the need to be held and cuddled, to be talked to, and to be visually and tactually stimulated. The exclusion of such conditions can have serious and prolonged effects upon the development of the infant.

Infants, from the day they are born, have a natural interest in sensory experimentation. When awake, the baby will spend a large amount of his time trying out newly found senses. Babies,

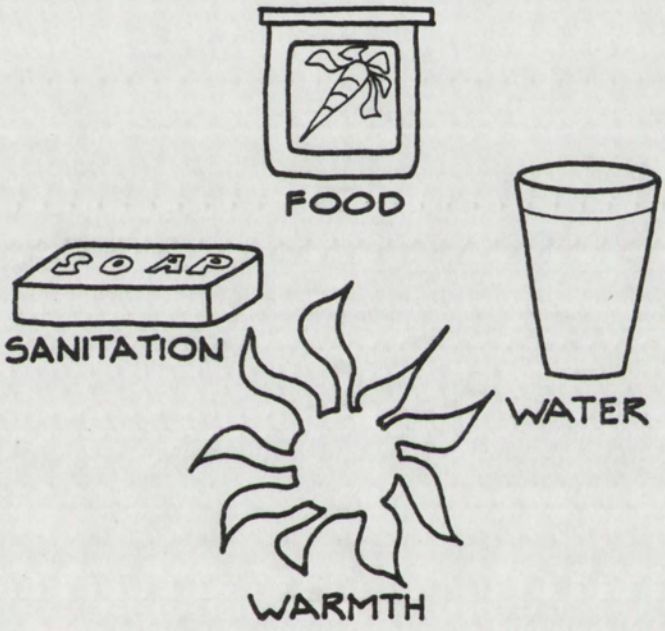


Figure 4

The Four Basic Needs of Infants

to the delight of themselves and others, will continually scan their environment with their eyes, listen to all the new and strange sounds, touch anything which happens to be within reach, and sniff the air for interesting smells. As investigative studies continue on newborns, more evidence is being formulated which indicates that the infant is more aware of his environment than previously thought. Dr. Evelyn B. Thoman has found in her experimentation with infants that,

"At birth, visual acuity is only slightly inferior to that of the older child, the fixation reflex is functioning, the infant is capable of visual pursuit of a moving target; and he is capable of discriminating pattern stimuli. The new born infant can also respond selectively to variations in auditory, tactile, and olfactory stimuli."[2]

It is not uncommon to find hospital nurseries which are environmentally sterile. This type of environment is often accompanied by the attitude that since the infant will not remember anything about his hospital surroundings, it does not matter what the space is like anyway. While there are still many doubts that infants can have conscious memory of their period of hospitalization, experiments by Dr. Calvin F. Settlage have uncovered some evidence which would indicate that, "It is likely that infants can retain impressions of experiences, especially of overwhelming or of repeated experiences."[3] It is not too difficult to understand that a period of hospitalization might be considered an "overwhelming" experience and in the case of the orthopedic hospital, where patients may make return and frequent visits, that it could be considered a "repeated" experience. The environment which is presented to the infant during this period is, therefore, considerably

influential in the psychological development of the child. It is also important to realize that the stimuli presented in the environment need not be remembered to have done its job.

Hospital studies considering the effects of hospitalization on infants have identified the following sequence: "1) separation from the main caretaker; 2) change of schedules and modes around basic physical functions; 3) succession of several caretakers; 4) reduced sensory input; 5) reduced opportunities for vocal and social stimulation; and 6) restriction in motor and exploratory activities."[4] Parents as well as professionals in the health care field have long been acquainted with the symptoms which the infants often develop upon their return home after a stay in the hospital. Such symptoms as the loss of appetite, prolonged periods of acute crying, and the inability to sleep at night without a light on are all quite common. As a result of these problems and others, concerned individuals and institutions have begun to make constructive changes in the care of the infant while he is hospitalized. Perhaps one of the most valuable of these changes has been the addition of parental participation as a resource in the care of the infant.

PARENTAL PARTICIPATION

Parental participation in the health care of the child is an involved and complex program which will be discussed to a fuller extent in a later chapter in this thesis. It is, however, important to briefly discuss some of the issues which pertain specifically to the infant at this point. It is also important to note that parental participation was first conceived by the doctors who

sometimes receive too little of the credit and too much of the blame for the things which happen in the hospital.

Pediatricians first observed the value of parental participation from a medical point of view. There were many problems of infants who were accustomed to being breast fed at regular intervals who were separated from their mothers for long periods of time. The pediatricians also realized the inhumanity in the practice of separating the children from their parents. It was a quite common practice in this country, not too many years ago, to only allow the parents to visit once a week and then only through a viewing panel such as a small window in a door. The primary reason for not allowing the physical contact between parents and their child was due to the lack of antibiotics which would lessen the risk of communicable diseases. "Unrestricted, or at least liberalized, visiting in children's wards has been in operation for about twenty-five years."[5] The Australian Association for the Welfare of Children in Hospitals recently reported that, "Parental access to the child should not be limited, and facilities for 'rooming-in' should be provided."[6] Hospital planning committees in this country should take note of this advice when considering the plans for their new nursery facility.

WHAT SHOULD THE HOSPITAL NURSERY BE LIKE?

Progression of the normal baby's motor skill development can be seen in stages as he first creeps, then crawls, stands up, and finally walks. The infant in the orthopedic hospital may be greatly hampered in this process depending on his particular ailment.

Regardless of his difficulty, safety should be a primary consideration for every element placed in the nursery. "Baby falls are almost routine. One hospital in New York moved all of the examining tables from the middle of the room over against the walls in order to cut down on the number of accidents."[7] Careful consideration should be given to avoid sharp objects, conjested crawl spaces, clutter from medical equipment, the use of wheeled goods which could tip over, and the placement of electrical outlets and radiators where the child can reach them.

The playpen has traditionally been used to separate the child from the hazardous clutter of the hospital ward. Playpens, however, tend to be quite restrictive to the active child, especially if he is already encumbered by a cast or other constrictive device. Group playpens which can be used by six to eight children at the same time might be very effective in promoting activity and encouraging the theraputically important movement of the limbs and body (see Figure 5). The equipment provided in this area can vary greatly depending on the number of staff persons available for supervision and the budget allotment for the purchasing of toys. The following are items which have been successfully used in nursery play environments: two inch round balls will fit in the infant's hand and can be used individually or rolled between the child and another participant; hanging mobiles can provide visual stimuli as the child watches it move (the individual pieces of the mobile should be positioned horizontally so that the infant will be able to see the colors and movement while lying down); rattling toys and wind up music boxes will introduce auditory stimulation

Figure 5

Group Playpens Encourage Social Interaction and Activity

in the environment; the infant will also use pillows and soft toys to cuddle up when he is tired of it all.

The overall design of the playpen should include both open spaces for group play and small enclosed spaces for the child to crawl into for privacy. The one essential element in the nursery play space is a soft surface which will allow the children to crawl and fall without incurring another injury to add to their problems. This crawling surface should also be easily cleaned since a children's play space tends to become quite messy over a period of time.

A change of the infant's environment is always a stimulating experience and encourages the baby to move and explore different situations. A trip outdoors is especially exciting since this exterior environment will provide a trememdous variation from the sensory input which is present inside the hospital. In response to the questionnaire, Mrs. Leola B. Tenholder, who is the administrator at the Shriner's Hospital for Crippled Children in Portland, Oregon, described her facility's outside play areas: "We have a large yard off of each ward that can be seen by a nurse from her station."[8] The planning committee should examine safety factors and personnel requirements when considering outside play space for all children. This area will be relatively safe for the children as long as there is adequate staff supervision. Any committee decision to provide such a space should be backed with administrative policy to insure safety and staff participation.

It is a very important staffing consideration to try to limit the number of people dealing with each child. At home the infant

is accustomed to one or two central figures in his life. In the hospital unit he will often encounter large numbers of support personnel which will pop in and out of the room which will lead to confusion and frustration. On the other hand, there should be an adequate staff to take care of the needs of the infants. Understaffing often leads to the dependence on television as a baby-sitter. Nurseries in the Soviet Union and progressive hospitals in the United States, such as the Stanford University Medical Center, operate on a ratio of one caretaker to four infants. It is felt that when this ratio reaches one to five or greater that the effectiveness of the caretaker begins to drop quite rapidly.

The physical design of the nursery unit can effectively facilitate the responsibilities of the caretaker. The cribs, for which the staff member is responsible, should be grouped close together with individual shading devices for each crib to promote individual sleeping when desired. The number of cribs in the space will probably fluctuate between three to five depending upon the number of patients on the ward. Each of the caretaker's stations should provide spaces for changing diapers with a toilet, a sink for bathing, storage for clean diapers and linens, and a place for garbage and soiled linens. It would also be beneficial to the child, if at all possible, to prepare food in this same area and thus provide olfactory stimulation. Space should also be provided to encourage the help of the parents. A hot plate, used by caretakers and parents to heat formulas and warm up cereals, and a small refrigerator for the storage of partially used food containers and fruit juices would provide

the basic necessities. These facilities should be sanitary and easily maintained (see Figure 6).

The parents can do many of the necessary tasks and give the caretaker some relief time. Parents are usually quite helpful in changing diapers, feeding, bathing, and taking temperatures. It is fundamentally important to provide adequate space in the unit so that parents do not feel like they are in the way. There should be a special alcove for the parents to rock their child and just be alone with him. This private space could also be used by nursing mothers.

The overall environment in the nursery unit should be sunny and light. Color preference studies indicate that infants usually like bright colors like yellow, blue, red, or green. Caution should be taken, however, not to over-use these colors as they can make for an overstimulating environment if they reach a certain saturation point. Patterned materials can also be effectively used to provide visual stimulation. Patterns can be introduced through wall coverings, curtains, floor tiles, ceilings, and bed spreads. Many hospitals allow the staff to wear patterned and gayly colored clothes to introduce additional visual selection.

It is important to provide opportunities for tactile stimulation. Textural materials such as wood, plastic, carpet, and concrete can be used as educational materials in addition to the traditionally used sand and water. When planning a sand box for indoor use it might be worth while to consider using sawdust since it is easier to clean up.

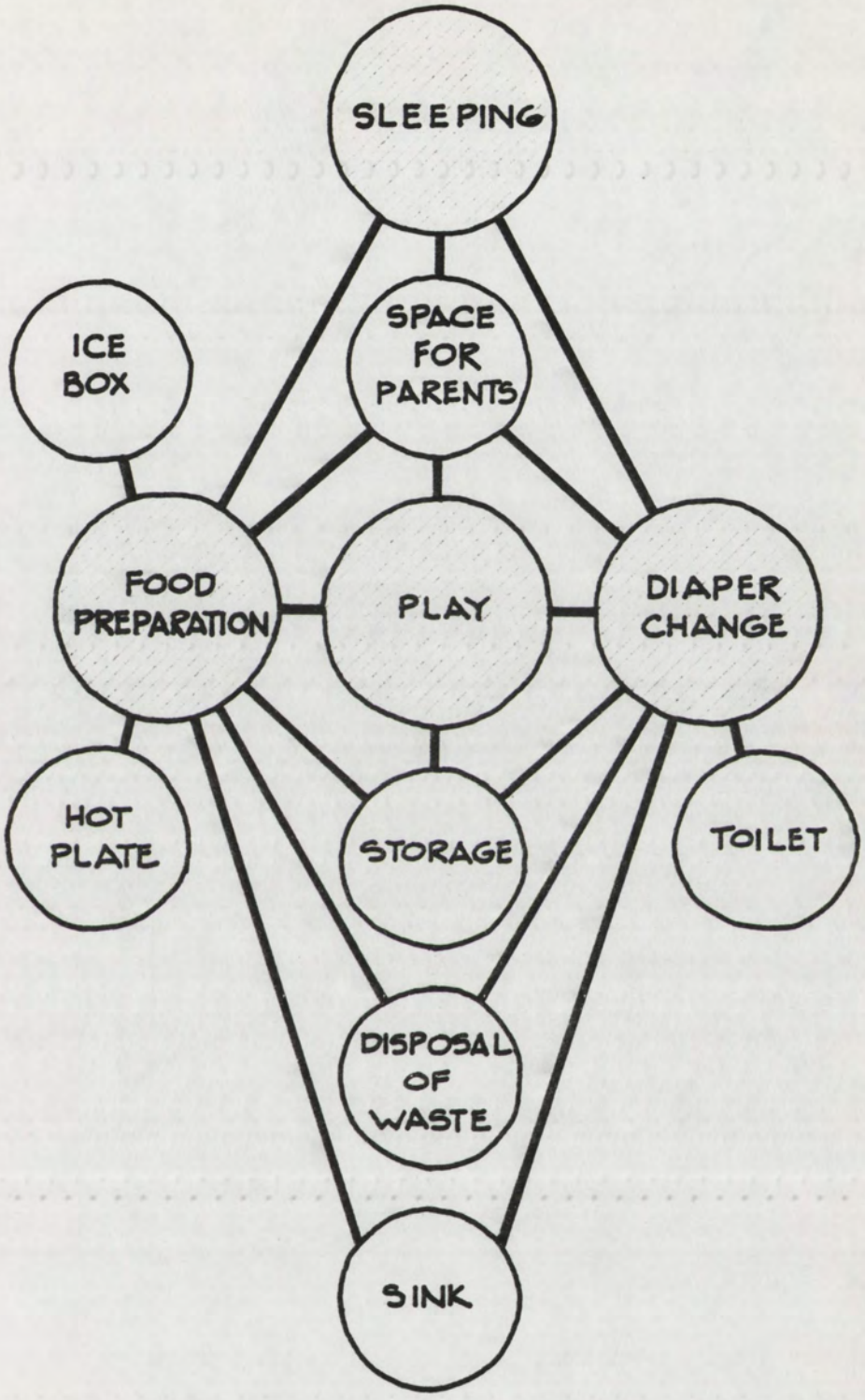


Figure 6

Bubble Diagram of Nursery Unit Showing Relationships of Activities (Shaded) and Requirements (Not Shaded)

Auditory stimulation is an additional and necessary consideration. Music can be used to promote different types of activities and moods. Soft music will facilitate sleeping and rest, while up tempo music can be used in the play environment to encourage activity. The staff should have the opportunity to change the music when necessary and also to choose the selections for their appropriateness.

The overall concept of the nursery environment is to establish a sensitive balance between stimulation and comfort (see Figure 7). The infant should be exposed to many different types of stimuli but should have the choice to withdraw. Careful and sensitive planning of this space can produce a nursery environment which achieves this design equilibrium and provides the most beneficial results for the patients, staff, and infants.

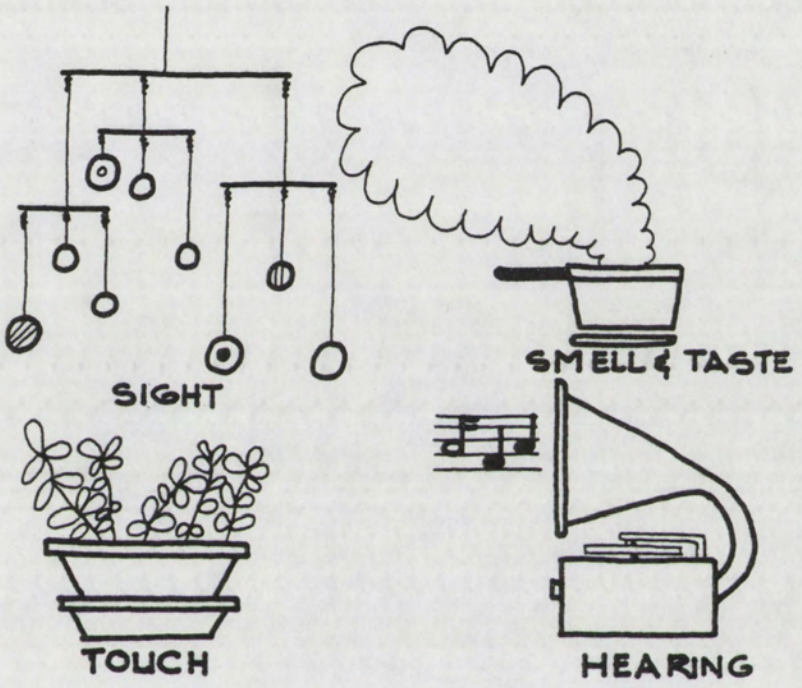


Figure 7

Provide a Sensitive Variety of Stimulation

INFANTS SUMMARY

ISSUE: Basic Needs: warmth, water, food, and sanitation

PROGRAMMATIC: The ratio of 1 caretaker to 4 patients will make the caretaker's job easier so that these tasks can be done.

DESIGN: Place cribs close to each other; provide area for food and formula preparation; provide toilet and running water for changing diapers; provide dirty and clean linen dispensers.

ISSUE: Secondary Needs: Stimulation

PROGRAMMATIC: See above statement. Consider the various ways in which the environment can be stimulating: visual, tactual, olfactory, and auditory.

DESIGN: Use a variety of colors and patterns; use mobiles overhead; music; tactual toys in the crib; cooking area nearby.

COMMENT: The designer must be careful not to overstimulate the environment.

ISSUE: Parent Participation

PROGRAMMATIC: Staff should be aware of parents' concerns and fears. See Parent Participation section and the summary chart.

DESIGN: Provide a private area for nursing mothers; the plan should allow additional space in rooms so that parents do not feel in the way; provide accomodations for living-in and a parent lounge. See Parent Participation summary chart and text.

COMMENT: It is an important time for the child and parent to be together during a hospitalization.

INFANTS SUMMARY CONTINUED

ISSUE: Safety For Infants

PROGRAMMATIC: Staff should be aware of potential safety hazards. Provide adequate staff supervision at all times to protect against accidents and injury.

DESIGN: Beds should have restraining devices to prevent falls; remove all clutter from floor and near cribs; provide safe and secure play and crawling spaces away from active areas; locate outlets and other potentially hazardous elements out of reach.

FOOTNOTES

[1]Evelyn K. Oremland and Jerome D. Oremland, Effects of Hospitalization on Children: Modes for Their Care (Springfield, Ill.: Charles C. Thomas Publisher, 1973), p. 98.

[2]Ibid. p. 103.

[3]Ibid. p. 98.

[4]Katerina Haka-Ikse and James van Leeuwen, "Care of the Long-Term Hospitalized Infant," Clinical Pediatrics 15 (July 1976): p. 585.

[5]"Children in Hospital- And After," Lancet 2(4 Oct. 1975): p. 649.

[6]Ibid.

[7]"What Hospitals are Doing to Cut Down Accidents," U.S. News And World Reports (29 Mar. 1976): p. 36.

[8]Children's Orthopedic Hospital Questionnaire Response From Leola B. Tenholder, Shriner's Hospital For Crippled Children, Portland, Oregon, July 1976.

PRE-SCHOOLERS

The pre-schooler is usually considered to be between the ages of one and five years old. This is a period of childhood development which is marked with tremendous physical, mental, and social growth. The pre-schooler has progressed through the first stages of infancy motor skill development and is now considered to be ambulatory. The normal pre-schooler can run, climb, dress himself, feed himself, manipulate mechanical toys, and participate in different forms of art work. The pre-schooler in the orthopedic hospital, however, may encounter many difficulties in accomplishing these tasks depending on his physical limitations. While the pre-schooler can get around his environment more than the infant, he still has not developed the coordination that is a characteristic of the school age child. Pre-schoolers also have a slow reaction time and are hampered by a lack of experience. For these reasons this period of childhood is often referred to as the accident prone years.

As in environments for infants, safety is a primary consideration for the pre-schooler. Items such as tempered glass and plastic should be used in lieu of regular sheet glass. Oxygen and electrical outlets, as well as heaters and other potentially dangerous elements, should be located approximately fifty-six inches above the floor to be out of the reach of the pre-schooler but still readily

accessible to adults (see Figure 8). While it may not be a pleasant consideration, modern hospitals must be concerned with the possibilities of kidnapping and child molesting. If the unit is designed with only one well supervised and controlled entrance, excluding the required fire exits, the risk of such hazards can be lessened. This single entrance will also prevent confusion to visitors and help the staff watch for runaway children.

In addition to ambulation, the pre-schooler has also learned to talk and is in the process of developing language skills. The language used by the pre-schooler communicates primary needs and wants. "She acquires many new words and learns to use them with increasing effect in communication. She talks more and more, and asks many questions."[1] These questions may prove to be very difficult to answer and are often best dealt with through advanced psychological preparation. The hospital staff as well as the parents should be prepared to give honest and appropriate answers to the inquisitive pre-schooler. The planning committee should consider the importance of a permanent psychological counseling service in the hospital.

Another consideration which is often overlooked is that the language that the child is learning may not be English. The pre-schooler, who is just beginning to communicate, will become quite frustrated and confused if the language used in his presence is not his own. The potential for language barriers is quite common in areas like the Southwest where there are tri-cultural influences of the Anglo, Chicano, and Indian. The planning committee should consider the region in which the facility will be located and

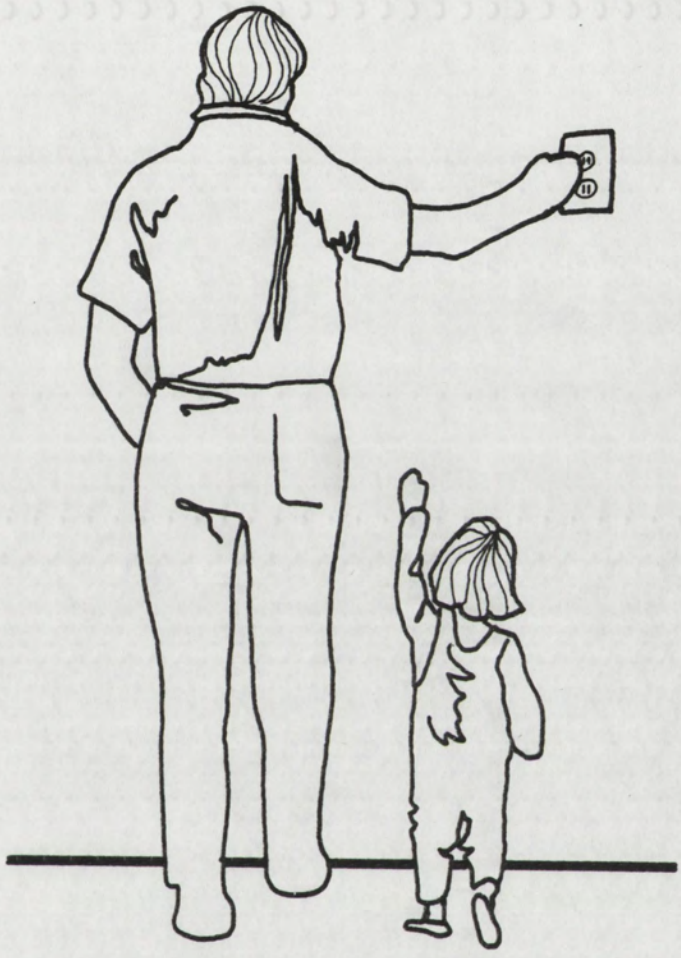


Figure 8

Locate Hazardous Fixtures Approximately 56 inches Above Floor Out the Reach of Curious Children.

evaluate the possibilities of similar problems. Providing an appropriate mix of personnel in the hospital may prove to be a very important element in the care of the bilingual child.

When the pre-schooler is hospitalized, it is important that his physical and social progress continue. The various types of therapists in the facility can greatly aid in the continuation of learning social skills. Social skills include such tasks as toilet training, dressing, eating, washing, and brushing teeth (see Figure 9). Regression of social skills is a common phenomenon with the hospitalized child. This is especially damaging to the pre-schooler since many of these tasks have just recently been learned, often at a great expense of time and energy by the parents. It is a good practice to consult the parents when the child is first admitted and determine the level of social development the child has achieved. At the time of admission, many hospitals provide a questionnaire which includes specific questions about the child's development. This information can be used by the hospital staff and help to prevent a development setback.

The hospital's physical environment should also encourage the pre-schooler's development of responsibilities. The bedroom unit should provide personal space, which is readily identifiable by the child as his own. Storage space is needed for clothes, toothbrushes, combs, art work, cards, flowers, and toys brought from home. Providing these spaces encourages the child to fold his own clothes, take care of his own personal hygiene, participate in the displaying of items which are meaningful to him, and feel secure that his toys are put away in his own personal place where

Figure 9

Social Skills

they will not be misplaced or forgotten. "Children do not and should not stop growing emotionally and stop learning just because they are in a cast or traction or confined to bed. They need an endless amount of encouragement. They may become more frustrated than usual due to their confinement."[2] Sometimes this frustration can lead to aggressive behavior. A soft pillow might be utilized to double as a punching bag to help release some of these pent up emotions. The design of the bedroom could include a soft, quiet nook where the child could work out these aggressive feelings without seriously endangering himself or others.

Hospitalization of the pre-schooler can be a serious threat to his emotional well-being. The child at this age usually displays three major emotions: 1) grief at the separation from his home and family, 2) anxiety over the possible mutilation of his body through surgery, and 3) frustration over the submission to immobility. The fear of separation and anxiety over mutilation has been confronted very successfully in some facilities through the advanced psychological preparation of the child and involvement of the parents. The hospital environment can also help in this endeavor. One helpful item is to provide a telephone which can serve as a link with home. Another helpful device is to insure adequate eye contact between the pre-schooler and his caretakers. Eye contact will be reassuring to the child if he is afraid that he is all alone, and it will also help him identify the person who is talking to him. The design of the pre-school unit, therefore, should provide for optimum visual contact between the patient and caretakers. The line of sight is often considered necessary for the nurses observation,

but it is just as important for the child to see the nurse. The design should avoid corners, partitions, and any other physical form which would obstruct the field of vision.

The following are two examples which vividly illustrate the repercussions of the above considerations:

"The nurse at the desk tried several times to communicate with four-year-old Johnny via the intercom over his bed. At last she said in some exasperation: 'Come on, Johnny, answer me--I know you're there.' After a slight pause a very frightened little voice asked, 'W-w-what do you want, wall?'"[3]

"A six year old child recently described his experience in a leading hospital, 'They looked at my throat and they looked at my ears, they looked at my heart - but they didn't look at me.'"[4]

The submission to immobility can be a particularly frustrating experience for the normally active and exploring pre-schooler. Hospitals usually provide play and recreation rooms, but often forget about the child who cannot leave his bed to get there. If the recreational opportunities are not brought to the child, he might remain in the same sterile environment for days. Ms. Joni Eareckson gives the following description of immobilization in her book entitled Joni:

"My days became dull routine, brightened only by my visitors. I was confined to bed because of bedsores. A nurse would feed me in the morning and empty my catheter bag. Then she'd check the round mirror above my head to see that it was focused for me to watch TV.

About noon I'd be fed and 'emptied' again. And more TV in the afternoon. Mornings were the game shows. Afternoons, the soap operas. Followed by more television watching until 'lights out'. Each day was a boring and monotonous extension of the previous day - Eat, watch TV, sleep, - in an unbreaking, sickening cycle."[5]

PSYCHOLOGICAL PREPARATION OF THE CHILD

"Anxiety set" is the term commonly used to describe the feelings of the child which comes with the first announcement that

he must go to the hospital. This normal anxiety can balloon into a full-scaled problem if the child's fears and fantasies are not dealt with in a logical and conclusive manner. "Hospitalization is a traumatic experience for any child; it is known that the child's fears and fantasies about it are important not just in themselves, but also as they affect his illness and its course."[6] Of the fourteen responding hospitals in the survey conducted for this thesis, only seven indicated that their facility provided any form of psychological preparation. For those hospitals which did provide this service, the most common means of preparation was a pre-admission conference. The doctor, parents, and patient would all attend this conference. The child would be permitted to ask any questions he might have about his impending hospitalization at that time. This method presents two immediate questions: 1) How many questions could a child of this age have about a situation which he may or may not comprehend, and 2) how does this method deal with the many questions which are sure to come up later, after the procedure is performed on the child? In 1970 a similar survey of twenty Bay Area hospitals in California was conducted "in an attempt to determine whether any improvement had occurred in narrowing the gap between theory and practice in the preparation of children for hospitalization. Eight of the hospitals surveyed, or almost half, have no plan at all for preparation."[7] This survey and the questionnaire have similar results which would indicate that the 1970's have not shown much improvement in this very important area of health care. The hospital planning committee should examine

the necessary staffing and building requirements to implement such a program.

It is most important for the staff to be sensitive and honest at all times. If a patient feels more relaxed when he knows where a nurse is taking him and what is going to happen when he gets there, that should be reason enough to keep him informed. "There is generally a great deal of reluctance towards telling the patient much of anything about the precise nature of procedures, test results, medications, and the like."[8] This type of information should not be withheld from the inquisitive child. The truth is usually far less to be afraid of than that which is conjured up by a vivid imagination. The honesty between the staff and the patient is essential since children at this age rarely forget and forgive. If the pre-schooler has been "crossed" by a staff member, the positive influence which that person and others have over the child can be seriously damaged. Since hospitalization for these children is often lengthy and repeated, interspersed with intensive out-patient care, the child's full cooperation in daily activities is essential.

Play therapy has been found to be a valuable tool in helping the child cope with the problems of hospitalization. The use of play therapy has been refined to an art by Child Life Programs in many hospitals. "A worker supervising hospitalized children must understand that each child needs to play out each role actively, and must have the opportunity to handle the instruments used on him. This play decreases the child's anxiety by enabling him to anticipate the experience, and thus master some of his fears."[9] Play therapy,

therefore, is a structured process designed to solicit a specific response or behavior which will be therapeutically beneficial to the child. For example, there are many children who are afraid of injections. The play therapist can help the child with these fears in several ways. By using a syringe and a doll as a prop, the therapist can encourage the child to give the doll a shot to help it feel better. The child might respond by insisting that the therapist needs a shot too. The therapist should play the role and say, "Ouch! That hurts but I will get better now."

The use of play therapy blends quite easily into the pre-schooler's mode of operation, since most of the things he is learning will happen during a play session. Play can be considered the child's work. His natural imagination and fantasies can be channeled in a direction which can be advantageous. The skilled play therapist can also help the child feel relaxed and comfortable about his surroundings; this in turn can make for a more cooperative patient. The Washington Children's Hospital in Washington, D.C., for example, has an operating room playroom which adjoins the anaesthetic room. The child who is to have surgery normally does not require any premedication, but instead is led to the playroom by a therapist. In the playroom he will meet the anaesthesiologist and ask any questions he may have and examine the equipment which will help him to go to sleep. The anaesthesiologist is trained in the preparation process and knows not to use certain terms such as "put to sleep," which the child might confuse with the action taken on old Fido, the family's dog. This kind of sensitivity

and cooperation between personnel can be accomplished with the careful guidance of a Child Life worker who is trained in this area.

PLAY AS A MEANS OF THERAPY

The therapeutic use of play has been defined as "a process that gives the child encouragement and freedom to express herself."[10] This process can be aided by the use of a formal play program. The following are goals which were established at the Memorial Sloan-Kettering Cancer Center when the facility was setting up their play program:

> "1) to prevent social isolation of the child by assisting him to maintain interaction with his peers, 2) to provide an educational experience that will facilitate his ability to cope with the demands of hospitalization, illness, and treatment, and 3) to obtain a better understanding of the child as an individual and within the context of his family."[11]

To accomplish these goals the playroom must become a focal point for the staff and patients. The American Academy of Pediatrics states that for children in the hospital, "A playroom with an adequate supply of toys, books, and games is not a luxury or a place where beds may be placed in an emergency. It is a therapeutic adjunct for convalescent and ambulatory patients. It is a necessary part of every pediatric unit."[12]

The hospital playroom can vary in size to meet the needs of the particular unit; however, it should not be any larger than that which is adequate to accomodate twelve children. If there are more than twelve in the room it makes communication difficult and, therefore, hampers the effectiveness of the therapist. The various types of people in the room can have an important effect upon the child. The playroom is a good place for the pre-schooler to meet

children, which he might not get to see near his room on the unit. "Hospitals typically segregate the long-term or chronic patients from newly admitted patients; and jails do the same for inmates."[13] The responses to the survey indicated that it is a common practice to segregate children by sex and age. Children can benefit greatly by being able to associate with others of different sex and ages. The children may be experiencing some of the same fears and anxieties and help each other by naturally playing roles.

The playroom is also a good "common ground" for the handicapped child to meet other children from outside the hospital environment. These children might be siblings of other patients or children who have been brought to the hospital by concerned civic groups simply to play for an afternoon. Hospitals have found that the handicapped child can benefit greatly from this form of interaction in areas of motor skill development and even use the preschool peers as a resource for language development. The benefits can work in the other direction also. One facility has observed, "The increased understanding and sensitivity to individual difference that non-handicapped children, their parents, and their teachers can develop out of involvement with handicapped children; a host of important attitudinal processes are likely to be positively affected."[14] Hospital planners would do well to encourage this kind of interaction and follow where the children might lead us.

The playroom also provides an excellent opportunity for the children to enjoy the nurse as a pleasurable companion who relates to them through their own medium of expression. The children quite readily respond to the personnel and particularly enjoy

giving the doctor a shot to return a favor. It is important to note, however, that in order to encourage the children to use this space it is vital that the children know that this is a "safe zone". The staff should, therefore, practice a hands-off policy when it comes to examinations, injections and blood tests when the child is in the playroom.

The subject of child abuse is not an enjoyable one in the context of a playroom but it is a reality which is especially relevant to the orthopedic hospital since this is where the broken bones are fixed. This space can be used by staff to observe how parents, suspected of child abuse, play with their children in a noisy and active environment. The play therapist can also work with the parent and child in developing a healthy and cooperative relationship. An observation room with one way glass which adjoins the playroom can help the therapist to determine the appropriate course of action.

When the pre-schooler is in the playroom he may prefer to play by himself as part of his environmental exploration. The play space should, therfore, provide small intimate spaces in which the child can be alone. It is also important that the space encourage group participation through larger open areas. "Group play provides more opportunities for catharsis than does individual play, and it provides more opportunities for reality testing, for the development of sublimatory channels, and for the development of insight."[15] The one year olds will often play with others through simple games like roll the ball. Three year olds often begin to play roles such as doctor, nurse, fireman, or mommy.

Children at this age particularly enjoy playing with materials such as sand, play-dough, and clay. One survey which researched the use of play materials by nursery school children found that, "The children spent 98 percent of their time in play with materials."[16] It has also been found that children prefer to play in environments that they can manipulate and change. Children always enjoy making a "set" for this role playing, such as a fort for playing cowboys and Indians or a house for having a tea party. The equipment that goes into the playroom, therefore, should be mobile to facilitate this creative activity.

THE PLAYROOM

The ideal environment for the pre-schooler is one which is safe, efficient, easily supervised, rich and varied, challenging but not necessarily competitive, and promotes self-help. The difficult task of the planning committee is to incorporate all of these elements into the same space. Initially, it is important to examine the physical environment and determine how the area can aid the activities required of it and still make a visual statement that this is a child's place.

Scale is always an important consideration when designing environments for children. The heights of boys and girls from the ages of two to five years old will range from two feet ten inches to three feet ten inches. Toys, furniture, mirrors, water fountains, etc. should be accessible to individuals of these heights. The designer and play therapist can control the selection of materials which can be used by different age group simply by placing objects

at different heights in the room. The children will also know that this is their place if the architectural elements, such as door and windows, are their size and are placed at the appropriate height.

When providing the proper scale for children, however, it is important to remember that an adult will have to take care of them. The scale of the space should not make their job any more difficult than it already is. For example, there is a piece of play equipment at Disney World in Florida which was specifically designed for children. It has many enclosed areas, with many different crawl spaces and levels. The problem occurs when it is time to go home, and mom and dad are hot and tired; it is impossible to get little Melvin out of the structure if he does not want to leave.

Providing for both the child and adult in the same space at first glance appears to be a contradiction. There are some architectural solutions which can help. Raised platforms can be used in special areas to provide the proper heights for both the child and caretaker. The equipment used is designed to the proper scale for the child but it is placed on the platform so that the caretaker does not have to bend over constantly. Activities such as eating, using the blackboard, and bathing can be aided by platforms. Balconies can also be effectively used to allow the child to be at the same eye level as the adult. A visual perception study which the author conducted at the Esperanza School in Albuquerque, New Mexico, in the fall of 1973, found that the children spent over sixty percent of their time looking up while in the classroom. The primary reason for this behavior was due to the differences

in heights between the children and the instructors who were demanding their attention. Besides a crick in the neck, this practice tended to give the children a distorted view of the adult and make him look larger and more imposing than he really was or intended to be. Placing the child at the same eye level should help the play therapist deal with the child as an equal and important individual. The child should feel more comfortable and, therefore, respond more willingly to the adult, which is an essential part of the role playing therapy (see Figure 10).

The floor of the playroom is another important element to be considered. The playroom floor will typically be used as both a play and work surface. The floor should be warm and soft, since many of the younger children will still crawl and roll. The floor should be considered an important visual and tactile stimulus in the environment. The surface can provide many different textures such as tile, wood, and carpet and a wide range of colors and patterns as well. Floor colors can be used to identify and visually separate different areas in the room. Additionally, the playroom floor should be easily cleaned since accidents with food, paints, glue, etc. are to be expected with regular reoccurrence.

Walls are an excellent surface to introduce different stimuli. Graphics are always a fun and important element in any playroom. The planning committee should consider the graphic elements selected for their educational, recreational, and cultural importance. Graphics are also a means to encourage the children to participate in the decoration and beautification of their space. A wall or a portion of a wall could be designated as the children's mural wall.

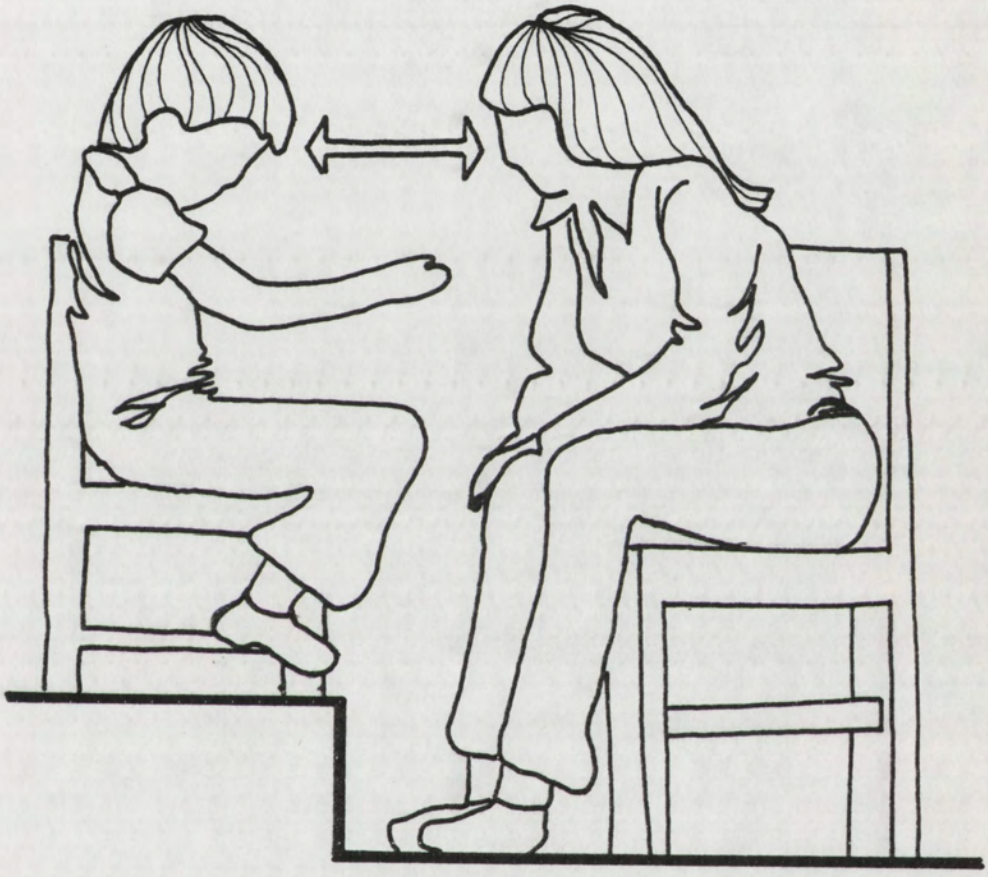


Figure 10

Platforms Can Be an Aid to Eye Contact Between Children and Adults

With the guidance of the play therapist and other interested persons the children could periodically repaint the wall with a current event, seasonal or historical scene. The playroom is a good place to display children's art work, which is done individually in the school or with the therapist. Provisions should be made, however, for the child to take his work with him when he goes home. A unique method of display was found during a remodeling project of the pediatric waiting room at the Bernalillo County Medical Center in Albuquerque, New Mexico. The waiting room had many columns which visually divided the space. When alterations were planned for the space, the columns were refinished with blackboard surfacing. Now, when the children enter the waiting room they are given colored chalk and encouraged to write all over the columns.

The overall layout of the playroom should be closely examined to insure that there is adequate space for the number of children who will use the room. Areas for orthopedic patients should be quite spacious to allow for wheelchairs, gurneys, and traction beds. The typical playroom can quickly become cluttered and ruin the best made plans. Adequate and available storage, therefore, is an essential element so that the play therapist can easily clear away objects which are not being used to insure accessibility. Care should also be taken to make sure that tables, sinks, and storage shelves can be used by the child who is confined to a wheelchair. An essential piece of equipment to be included for the playroom is an overhead rack which can be attached to the hospital bed. Children who are confined to bedrest or in traction can use an overhead rack to draw, fingerpaint, cut and paste. Some

overhead racks come equipped with a flannel or magnetic surface and finger puppets are often used as a therapeutic aid for children with restricted hand and arm motion. A puppet stage can become a central element in the playroom but caution should be taken to insure that it is mobile since they tend to be quite large and take up valuable space. If the stage is designed properly it could also be used by children on gurneys and in bed.

The planning committee should always keep in mind that the primary goal of the playroom is to encourage patient participation. Elements should be educational, therapeutic, and most importantly they should be fun. This should be a space where the children have control and are able to alter and modify the space for their own liking.

WHAT DO THEY DO THERE?

The most important activity happening in the playroom is the process of role playing to work out difficult problems and fears. This activity can be aided by the use of costumes and props to help the child's imagination. Flowers, hats, coats, shoes, and dresses always help to play grown-up roles. Regular hospital equipment like syringes (with the needle removed), intraveneous tubing, bottles, suture sets, tongue depressors, stethoscopes, surgical masks and gloves, a blood pressure set, bandages, alcohol swabs, and reflex hammers can all be very useful to the play therapist in describing medical procedures and techniques to the pre-schooler. This can greatly alleviate many of the fears of the unknown for the child. Diagrams of boys and girls are often used to explain where incisions will be and how large the scar

will be. Dolls with removable limbs can be used by the therapist to explain an amputation. The part which is replaced on the doll resembles an artificial limb rather than the real one to insure a realistic expectation for the child.

Individual play will usually consist of blocks, rattles, balls, and pull toys for the younger children. Group activities frequently center around blowing bubbles, using play-dough, painting, and rhythm bands. The playroom on the ward may be used in the evenings for the preparation of bedtime snacks. These are usually simple foods such as popcorn, puddings, and pre-made frozen cookies.

THE OUTSIDE PLAY SPACE

An outdoor recreational area can be a very valuable asset for the hospital's overall program. The Nuffield Foundation, which studies the planning of hospitals for children, stated in a recent report that, "Whatever the shape of the building, it ought to open onto a garden or courtyard for the children's use."[17] Of the fifteen hospitals surveyed in the pediatric orthopedic hospital questionnaire, thirteen of the facilities indicated that they provided spaces for outdoor recreation. Some of the suggested uses for this area besides play were for parent and staff observation, picnics, visitation, cook-outs, parades, concerts, and a circus. It is obvious that the exterior environments for these facilities had become an integral part of the hospital's program. The following is a description of how the outdoor spaces work for the City of Hope National Medical Center in Duarte, California.

"The inpatient wing extends westward from the lobby through a landscaped area, affording each patient's room with a view of the outdoors. The irregular configuration of the building provides one garden court on the northern side of the wing and one on the southern side. Each court has an outdoor play terrace that is accessible from a large, bright dayroom in the wing. Play equipment for these play areas include slides, sand boxes, stepping logs, ping-pong equipment and concrete animal figures. The terrace also can be used for sunbathing and picnicing."[18]

Many of the same types of activities and elements which are provided inside should also be included in the outdoor environment. Similar planning elements such as different sized spaces for group and individual play, observation spaces, and adequate storage facilities should be included in the design of the playground. There will also be some new and different issues for the committee to evaluate and study.

A study of climatic conditions of the area where the hospital is to be located is an important consideration. This study should provide information regarding days of sunshine, wind directions, monthly precipitation, snowfall, and sun angles. This information can be used during the design of the playground to provide proper amounts of shelter and sun screening and also aid in the selection of vegetation. If the climatic conditions allow, it is beneficial to provide a varied landscape with plants which give a wide range of visual, tactual, and olfactory stimulation. Patient participation can also be encouraged through gardening and other plant maintenance activities.

Another important consideration is the selection of appropriate play equipment. The equipment which was mentioned in the questionnaire responses included swings, slides, shuffle board, volleyball, and ping-pong tables. It is important to note, however, that

swings without proper safety belts and long slides can be particularly hazardous to the child in a cast or recovering from surgery. While this type of equipment may be very popular and appropriate for normal children, it might prove to be dangerous to the handicapped child. Fun, however, need not be sacrificed. The committee might find that the physical and/or occupational therapist might have ideas for appropriate alternatives. Items such as fingerladders for children with limited motion and an automobile body for the teaching of auto transfer to children in wheelchairs can be worthwhile additions to this specialized playground. Picnic tables for playing board games are also good additions. Sand and water areas which are raised so that children in wheelchairs and gurneys can reach them are important. The water does not need to be deep to sail small boats and still insure safety. Whatever elements the committee decides on, the goal of the equipment selection should be to challenge the most skillful child, but at the same time provide opportunities for successful achievement of the least skillful or most severely handicapped.

PRE-SCHOOLERS SUMMARY

ISSUE: Psychological Preparation

PROGRAMMATIC: Consider pre-admission and comprehensive counseling throughout child's hospitalization. Provide Child Life Worker, pediatrician, psychologist, or psychiatrist to coordinate efforts. See hospital invitation and pre-admission booklet in appendix section.

COMMENTS: This is the most important time to deal with "Anxiety Set".

ISSUE: Fears: Separation

PROGRAMMATIC: Encourage parents to visit as much as possible or stay at facility with the child. Coordinate information about when the parents' next visit will be among all staff persons.

DESIGN: Provide spaces to encourage parent participation; provide eye contact between the child and his caretaker; provide links with home such as the telephone; provide spaces for display of items brought from home.

ISSUE: Fears: Mutilation

PROGRAMMATIC: Provide counseling to help patient, staff, and parents deal with possible questions and appropriate answers. All procedures should be explained; no "sneak attacks."

DESIGN: The operating suite and the cast room are particularly stressful areas; consider the use of play spaces to ease transition into rooms; graphic on ceilings will give the child something to look at while on the table.

PRE-SCHOOLERS SUMMARY CONTINUED

ISSUE: Immobility

PROGRAMMATIC: Staff awareness and motivation to take child to activity areas; playroom, outdoors, school, etc.

DESIGN: Overhead racks can be attached to the bed to bring opportunities for recreation and education to the child.

ISSUE: Play as a means of therapy

PROGRAMMATIC: Child Life Worker to encourage role playing and coordinate effort. Staff should allow the playroom to be a "safe zone" and relate to the child as a person. Provide proper supervision if outdoor area is included in plan. Encourage the participation of siblings and non-handicapped children.

DESIGN: Playroom: This should be the "child's place"' rich and varied, scale should accomodate both the child and the care-taker; provide spaces for both individual and group play; provide adequate storage to alleviate clutter (storage can be used as educational tool if outline of object is painted on surface where it is to be placed); provide small cooking area for preparation of simple snacks; provide puppet stage and props for role playing; room should accommodate 8-10 children at one time.

ISSUE: Regression of social skills

PROGRAMMATIC: Admission questionnaire for parents to fill out indicating child's capabilities. Staff should encourage the child to do all of the things that he is able to do for himself.

PRE-SCHOOLERS SUMMARY CONTINUED

DESIGN: Bathrooms should have appropriate sized fixtures to facilitate the child's efforts to take care of his own personal hygiene, toilet training, bathing, brushing teeth, etc.

COMMENTS: If independence is not allowed during hospitalization the child will suffer a great deal of frustration.

ISSUE: Language Barriers

PROGRAMMATIC: Parents can help to decipher "baby talk" or even second language. A staff member or ombudsman should be provided who can help with the bilingual family.

DESIGN: When appropriate provide bilingual signs and multilingual directions throughout the facility.

COMMENTS: The child at this age has a tremendous "need to know". A language barrier can cause frustration, confusion, and anxiety.

ISSUE: Safety

PROGRAMMATIC: Staff and parents should be aware of potential safety hazards.

DESIGN: Provide a controlled entrance to the unit; tempered or wired glass to prevent cuts; outlets should be installed 55 inches above the floor; avoid the use of movable carts that could tip over if child leans on it; provide proper amounts of storage rather than clutter.

COMMENTS: These are the "accident prone" years. The hospital does not want to be responsible for causing the child additional injuries.

FOOTNOTES

[1]Ada Butler, Jean Chapman, and Maria Stuible, "Child's Play Is Therapy," Canadian Nurse 71(Dec. 1975): p. 35.

[2]Nancy E. Hilt and William E. Schmitt, Pediatric Orthopedic Nursing (St. Louis: The C.V. Mosby Company, 1975), p. 184.

[3]Roslyn Lindheim, Helen H. Glaser, and Christie Coffee, Changing Hospital Environments For Children (Cambridge: Harvard University Press, 1972), p. 31.

[4]June D. Jolly, "Preparing Children For Hospital," Nursing Times 72 (30 Sept. 1976): p. 1532.

[5]Joni Eareckson with Joe Musser, Joni (Minneapolis: World Wide Publications, 1976), p. 63.

[6]Margaret A. Adams, "A Hospital Play Program: Helping Children With Serious Illness," American Journal of Orthopsychiatry 46 (July 1976): p. 416.

[7]Evelyn K. Oremland and Jerome D. Oremland, Effects Of Hospitalization On Children: Modes For Their Care (Springfield, Ill.: Charles C. Thomas Publisher, 1973), p. 28.

[8]Adele D. Hofmann, R. Becker, and Paul H. Gabriel, The Hospitalized Adolescent: A Guide To Managing The Ill And Injured Youth (New York: Free Press, 1976), p. 75.

[9]Oremland, Effects OF Hospitalization On Children: Models For Their Care, p. 35.

[10]Butler, "Child's Play Is Therapy", p. 35.

[11]Adams, "A Hospital Play Program: Helping Children With Serious Illness", p. 419.

[12]Lindheim, Changing Hospital Environments For Children, p. 46.

[13]Robert Sommer, Design Awareness (San Francisco: Rinehart Press, 1972), p. 74.

[14]Michael J. Guralnick, "The Value Of Integrating Handicapped And Non-Handicapped Preschool Children," American Journal Of Orthopsychiatry 46 (Apr. 1976): p. 241.

[15]Adams, "A Hospital Play Program: Helping Children With Serious Illness", p. 418.

FOOTNOTES CONTINUED

[16]Lindheim, Changing Hospital Environments For Children, p. 26.

[17]Ibid. p. 50.

[18]"A Pediatrics Center's Ambiende Accents Patient Care, Play, and Parent's Convenience," Hospitals 50 (16 Jan. 1976): p. 23.

THE SCHOOL AGE CHILD

The classification of school age indicates that the child is somewhere between six and twelve years old. Although this is an arbitrary classification, children in this age range share certain characteristics which vary from both older and younger children. In our modern society where mothers are going to work after having children, children are entering school at an earlier age. The modern child might attend several years of nursery school and a few years of kindergarten before ever entering the traditional school system. On the other end of this age spectrum, it is often difficult to determine when a child will mature beyond the school age classification and enter adolescence. Since it is common for children to mature and grow at different rates, each child should be evaluated on an individual basis to determine his level of maturity. Children of all ages are often insulted by inappropriate projects and stimuli which they consider to be beneath them.

The child's development and physical changes will take longer and be at a considerably slower pace than during earlier periods of childhood. The school age child will have fewer accidents than younger children since he has developed his coordination and is typically capable of a variety of motor skills. This level of physical development may vary greatly, however, with the children

in the orthopedic hospital. Lack of coordination and motor skill development can be a serious concern for the school age child, since he is by now fully aware of the other children around him and what his society considers to be normal. The children with which the patient associates will have an effect on his attitudes, stability, and his social development.

Our western civilization usually dictates that children be segregated by sex. The attitude that "little boys should do little boy things and little girls should do little girl things" is changing but still evident in many segments of our society. All of the questionnaire respondents indicated that their patients were physically separated by sex regardless of age. The school age period is a time when there is tremendous peer pressure, and barriers which society has created ensure that there is very little mixing of the sexes. The child's friends will generally by of the same sex whether as a result of this pressure or pure preference. The two groups may even segregate themselves when placed in common areas like the classroom or playroom. As our society grows and fluctuates, these attitudes may change; however, it is not possible for a planning committee to make decisions which will dictate social change on any large scale. This is an area where the involvement of the parents in the planning of the facility can help. If the parents are informed and involved, they can be a vital asset to the planning of programs for their children and deciding what would be appropriate on this and other issues.

The school age child no longer singularly communicates verbally, but he can also read and write. The school age child will also seek other outlets of communication and self-expression such as art and music. It is somewhat ironic that our society places so much emphasis on teaching children to speak; and then when he is able to use his language skills, we enforce the traditional policy of "children should be seen and not heard." The school age child, more emphatically than younger children, needs to express himself and to be heard. The hospital should provide ways for this self-expression.

The playroom program, which has already been described for pre-schoolers, can also work very well for the school age child. A child talking with the play therapist is always a good source of emotional expression and relief. The school age child often finds a great deal of satisfaction in working with the younger children. This experience can serve as a confidence builder. Children at this age also delight in being given a position of responsibility. They can assist the play therapist or other staff members by feeding the fish, watering the plants (if they are not over-zealous), or even help with the preparation of a snack (see Figure 11).

For most children at this age, the subject of hospitalization is easier to discuss. The child can accept or at least understand the need for his hospitalization. These children are also capable of understanding many of the issues which are a major source of concern for the younger child. For example, the school age child can understand why parents cannot stay all night, that they have to

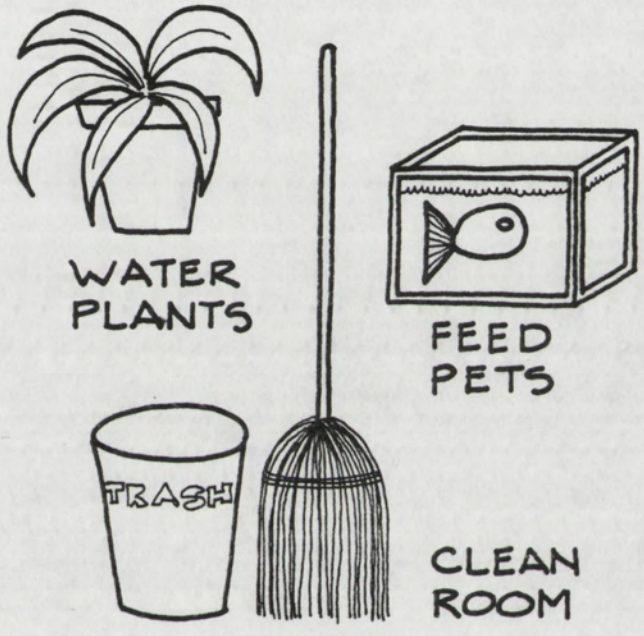


Figure 11

Provide Opportunities for Children to Assume Responsibilities

go to work tomorrow, or that they have to go home to take care of the other children in the family. The fear of separation is also lessened to some extent since the child can understand when his parents are coming back. Separation need not be a problem unless for some reason the parents are not able to come back at the previously determined time. Uncertainty on the part of the school age child can cause a whole new set of problems with which to deal.

Although it is often easy for the parents and staff to forget that the children comprehend their situation, this does not mean that they do not have fears or anxieties. These fears are just as real and important as those of the younger child. School age children are still fearful of bodily mutilation. They may understand why they must have a particular surgery but that still will not make the pain go away. At this age many patients with orthopedic defects have had one or more surgeries. As a consequence, rather than being afraid of the unknown, they have by this time been given adequate reason to be afraid of the reality. It does not do any good to tell the child that it will not hurt, because he knows better than that.

Hospitalization also presents a threat to the child by taking away his hard fought and won independence. The school age child, due again to social pressures, typically seeks to achieve independence in many areas of life. The attitude, "Let me do it... You are treating me like a baby," has been well established and molded into the child's personality makeup. The child wants to dress himself, take care of his own hygiene, select his own

things, and do his own work without the supervision of an adult. When the child is in the hospital, however, he is confronted with a caretaker who is responsible for seeing that many of these tasks are performed and on schedule. The child may revolt against this new authority figure and become a disciplinary problem which does not do anyone any good. Pediatric personnel are usually aware of these problems and can adjust to the particular situation. It might take longer for the child to select his own socks and put them on than if the nurse did it for him, but everyone will be happier in the end. The physical design of the unit can facilitate the child's tasks and thus make it easier for all concerned.

THE BEDROOM:

Since school age children often spend a great deal of time in their bedroom, the environment must offer more than merely sleeping accommodations. Many children are accustomed to playing and studying in their bedroom at home and expect to do the same kinds of activities at the hospital. When the children are awake, the bedroom should become an area for the completion of projects begun in the school or in the recreation program. A work surface large enough for the child to build models or to do homework assignments is a good step in the right direction. It is important, however, to make sure that there are enough work and play spaces provided so that each of the patients in the room has his own place.

Individualism, which is a result of their independence, is an important design element to be included in the unit.

"Every patient, no matter how sick he is, needs some privacy, a place he can call his own, and where he may store his personal possessions. After all, man, like other animals, has territorial instincts."[1] Territoriality is the taking possession and at times even physical defense of a space which the person wants for his own. This is a natural process which is evident in many of our daily social activities, including such activities as the decision of where to sit when entering a room or the annoyance felt when someone is reading over your shoulder. Predetermined and obvious territorial boundaries will facilitate this natural phenomenon and make it less of a source of conflict. One method, which has been successfully used in schools, is to provide color or otherwise coded areas for the children as they enter the classroom. Since the children recognize the designated area as their own, it provides them a sense of being and a private space within the environment. This concept can also be used and expanded upon in the hospital bedroom. Areas within the room can be color coordinated in different color schemes. This will provide visual barriers without having to construct partitions or physical structures which might hamper the lines of sight required for observation. For example, one child would have an area consisting of his bed with a different bedspread, a window with curtains to match the bedspread, storage spaces for clothes and toys, a work surface, and a display space all in shades and tints of blue. The other children in the room would also be given the opportunity to select between green, yellow, orange, etc. until everyone had his own individualized space. Areas which are to be used by all

of the patients, like the bathroom, can also be color coordinated. Toothbrush and towel racks can have the same color codes used in the main bedroom area so that these items do not get mixed up.

The element of privacy is another important consideration for the design of the school age unit. It is important to provide the child with private spaces where he can dress, be examined, or go to the restroom without being in the main stream of public attention. Movable curtains which can be pulled around the patient's bed are the traditional elements used in the hospital for privacy. While the curtain may facilitate the private examination of the patient, it is still difficult to get dressed while in bed. In addition, total visual privacy is considered to be contradictory to the goal of the unit which is to encourage participation and activity. Isolating the child by walling him off defeats this purpose. Semi-privacy, on the other hand, gives the child the option and allows him the decision as to whether or not he will join others. Children at this age, like the pre-schooler previously discussed, also prefer to be able to see their caretakers for reassurance. Many nurses will also agree that staff observation should take precedence over total privacy. Semi-privacy can be accomplished by the careful positioning of the right sized furniture (see Figure 12). The planning committee may find that when working with the bedroom unit and other spaces that a scaled model of the area will be a helpful tool. It is often easier to understand and evaluate what will happen in the particular space by using this design tool. The study model in this case should indicate the approximate size of the unit and movable elements such as furniture,

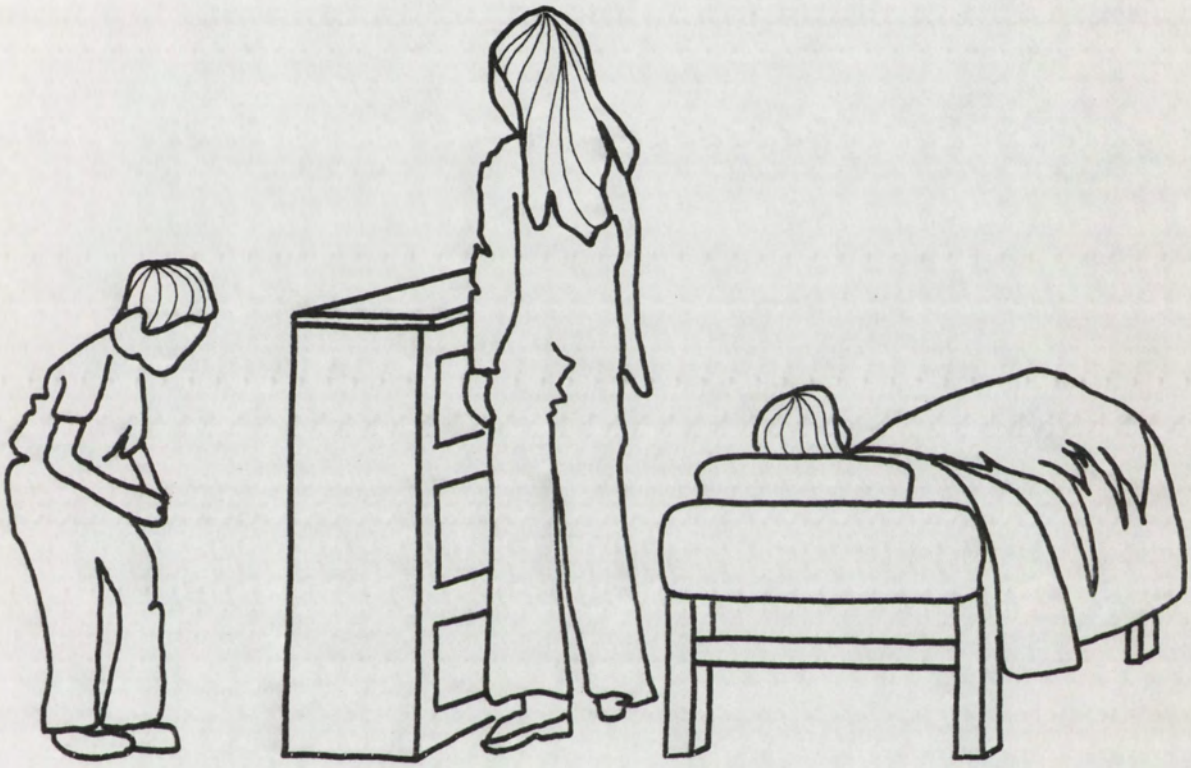


Figure 12

Proper Positioning of Furniture Can Provide Semi-privacy and Also Allow for Supervision by the Caretaker

windows, doors, fixtures, and medical equipment. Scaled models of patients and adults will also be useful when studying items such as scale and lines of sight.

The number of patients per room is a fundamental decision which will affect many of the other items to be discussed in the committee. The responses from the questionnaire indicated that the typical patient space is located in a ward ranging in size from five to thirty-six beds. It is important to note, however, that the use of large ward type rooms is in a downward trend. The following is an example of contemporary thought on the subject of the number of patients per room in the orthopedic hospital: "Immobilized children do not do well at all in private rooms. They will adjust to their immobility much better if placed in a two- or four-bed unit. This will provide some activity, relationships, and conversation when parents and staff are not with them."[2] Perhaps the best suggestion would be to provide a variety of room types and sizes.

The four-bed unit is probably the best for children in the orthopedic hospital. The patient will have three other roommates which should provide more opportunity for social interaction than a smaller room. This room will also have less noise, traffic, and general commotion than is typically found on a large ward. Four patients is also a good number for one caretaker to be responsible for. A suggested room size for the four bed unit would range between "308 and 401 square feet of space."[3] The three bed unit is not used very often. Three people do not often provide a good living relationship as friction can occur. Two of

the patients will normally have more in common and like each other's company better. The third person in the trio is often left out of activities and conversation, and at times he will even be teamed up on by the other two. The two-bed unit will work well but often provides less opportunity for social interaction. The two-bed unit can be used, however, as a place for parents to stay with their child. If cots are provided, two parents can stay with two patients. This gives the parents someone to talk to and confide in besides hospital personnel. The parents in the room may also learn that they have similar problems with their children and share their experiences. Double rooms in hospitals will range in size from 157 to 210 square feet. It is suggested that the larger number be used when considering parental participation in the room.

The hospitals surveyed indicated that single rooms are often required for cases of infectious diseases, serious wounds, and trauma. The isolation room is a specialized room, since children with infectious diseases or serious wounds can be confined in this room for six weeks or longer. Next to sanitation, the top priority for the design of this room should be to provide the patient as many options for changing his environment as possible. The patient should be able to choose such things as color of decorations, types of art work and posters, things to eat and books to read. It is also important to provide a wide variety of activities such as television, radio, puzzles, games, projects, etc. Closed circuit television can provide children the opportunity to take part in school, recreation, and other special events. It

is important to note that all of the elements brought into the room of a child with an infectious disease will have to be easily sterilized after the child's use or they will have to be destroyed. For example, posters and drawing paper may have to be burned to prevent the spreading of the disease. The following is a description of some of the requirements for this special room.

"Each isolation room should have an adult-sized lavatory with knee action control, a hook strip for gowns near the corridor door and an individual toilet with bedpan-flushing attachments. It should be connected with a sub-utility room equipped with a sink and utensil sterilizer. The isolation room should be large enough to permit the use of an additional full sized bed for a second patient with the same infection or for a mother to stay with her child."[4]

Providing opportunities for the child to assume responsibilities will encourage independence and promote self esteem. Most children are required to do certain tasks at home and seem to expect the same kind of treatment when they are in the hospital. While they may grump and groan about having to take out the trash, they are still reassured that they are helping and can be useful. It is not too much for the nurse to ask the child to clean up his desk, straighten up his clothes, or dust around his furniture. People who work with children often find that it is not so much <u>what</u> is asked of the child but <u>how</u> it is asked. Mrs. Betsy Bezzeg, the director of the Child Life program at the Bernalillo County Medical Center in Albuquerque, gives a good example,

"If the nurse tells the child to take care of little Billy then she will probably get a very negative response. If, on the other hand, she takes the child off to the side and whispers something like, 'We are having trouble with little Billy. He just doesn't want to participate because he doesn't have a friend. We were

wondering if you might play with him for a while and help us get him going?' The response will probably be completely different since the child now has been given a mission of vital importance."[5]

THE HOSPITAL SCHOOL:

It is an accepted fact in pediatric orthopedic hospitals that alternate schooling is essential due to the repetition and length of hospitalization. All fifteen of the responding facilities indicated that they each provided a formal school program for the children while they were in the hospital. The size of the individual programs and the number of personnel involved varied greatly, depending largely on the number of patients served by the hospital. The responses indicated that the teachers, teacher assistants, and aides were usually provided by the local governing board of education; although the type of governing body would depend on where the hospital was located. When planning a school program for the hospital, the committee should establish contact with appropriate educational authorities, in an effort to establish good coordination from the beginning. The planning committee might even consider inviting someone from the governing board of education to participate in the planning process of the facility. The person chosen for this committee position should eliminate discrepancies and also serve as a liaison between the hospital and the authorities.

"Many hospitals acknowledge that a sick child is penalized educationally as well as physically and psychologically. Even a short stay in the hospital is difficult for a young child if he misses school work that is new and basic."[6] Children might often be concerned with falling behind in their school work.

Frequent and lengthy trips away from the classroom can cause serious problems in the child's efforts to keep up with the rest of his class. The hospital based teacher can help the child to keep up, but it is vitally important that the instructor know not only what grade the child is in but also at what level the child is performing. Some hospital schools require the patient to bring examples of their recent work, the textbooks they are using, and a note from their regular teacher explaining the child's progress and what he will be missing while he is away. If the school system is not practicing such coordination techniques, it is important for the planning committee to establish these procedures for the benefit of their patients.

It is often difficult for the child in the hospital to concentrate on a given task when he is preoccupied with fears and concerns about himself. The hospital environment is an ever present reminder of his predicament. If it is possible under the constraints of the building site and design of the facility, it is recommended that the school be situated away from the medical services. Having the blood drawing room right down the hall or within hearing of penetrating screams of another child being examined will destroy any positive effects which the learning environment might have. In addition, the classroom should simply look different than the rest of the hospital. Elements such as color, the carpet on the floor, furniture, and even the noise level should be unique to this area in an effort to psychologically separate the child from the surrounding hospital environment. The school room, like the playroom, should be a

"safe zone" for the child. He should have the reassurance that no lab test or physical examination will be performed on him while he is in the classroom.

Since it is not usually feasible or economical for most facilities to provide space and personnel for each of the grade levels, most hospital schools group the children into classifications such as pre-school, elementary, and secondary. All of these children regardless of classification will normally have a reduced concentration period due to their hospitalization. The open classroom concept can be beneficial for these children. It is an attempt to move away from the regimented, structured, and traditional mode of education which often proves to be uninspiring and boring to these children (especially the younger ones). The open classroom is designed to function on principles similar to the playroom for younger children. The environment for this individualized instruction should be very flexible and with different spaces or activity centers to encourage his participation in different areas of study. Instead of being fixed in one position like the traditional classroom the child is free to move around the environment, picking and choosing the activities he wishes to explore. The following are example activity centers which might be found in the open classroom: a science area with growing plants and an aquarium; an arithmetic center with mathematical puzzles, primary calculators, and a graph chalkboard for working problems; a reading area with a large selection of reading materials and an alphabet graphic on the wall with removable letters; an art area with a large selection of materials for finger painting, drawing, coloring, cutting and

and pasting; a music area with different types of instruments which can be played individually or with other children. The teacher in the open classroom becomes more like a facilitator than an instructor. This instructor is free to move from child to child within the environment and encourage the children to discuss what they are doing. (For additional information and ideas about the open classroom concept the committee should consult the text, School Zone: Learning Environments for Children, by Anne P. Taylor and George Vlastos, published in 1975 by the Van Nostrand Reinhold Co.)

As the children mature, there is a need to work independently on specific assignments to encourage individuality and self-reliance. This type of work may closely resemble the traditional methods of education, but the tasks still do not have to be performed in a structured and sterile environment. The classroom should provide comfortable and readily accessible spaces for these independent projects. If the teacher has been informed ahead of time about the child's hospitalization, she can provide assistance in these endeavors similar to the manner of the regular teacher. The hospital teacher can give and grade assignments and tests which are the same or similar to the ones being given in the child's regular classroom. This will depend greatly on whether or not there are channels of communication for the two teachers to work through. Teachers, in general, due to the nature of their work, are usually quite sensitve to the needs of children; and, therefore, communication of this type is not too difficult to establish. Some of the responding hospitals gave evidence that

these communication channels had been established voluntarily while the teachers were waiting for the school board to tell them how to proceed.

There are many restricting factors which will have a definite effect on the design of the classroom. The facilitator on the planning committee should make all of the code requirements known and available to the rest of the group. For example, the committee might decide that it would be nice to provide large amounts of surface areas for displaying the children's work as an outlet for self-expression. Various authorities may have restrictions, however, regarding the amount of display space permitted in a classroom. This is due primarily to the extreme flammability of the paper products commonly used for art projects in schools. It will save a great deal of time, effort, and money, therefore, if the committee is informed of the rules going into the game rather than to be penalized later.

Since this is a classroom for special children, it will require some special equipment and consideration. Many of the items discussed concerning scale in the pre-schooler's playroom can also be applied in this area. The concept of the open classroom is to encourage the children to participate. It is essential, therefore, that all of the learning materials and equipment be at the child's height and within easy reach to facilitate his participation in the various learning centers. The height of boys and girls from ages six to twelve will range from three feet ten inches to four feet ten inches. The arm reach for these same children will also vary from nineteen inches to two feet two

inches. Their chair heights, which will also have some bearing on what they can reach, will range between eleven inches to fourteen and one half inches from the seat to the floor. For additional information the reader should refer to the child dimension chart provided in the appendix.

The planning committee should consult an educational specialist, or a proposed teacher for the facility, when programming any of the required equipment for the school. The consultant should be asked to provide information about the various types of educational equipment available and tell how it could be used in this special school. It is often easy to overlook or underestimate the essential equipment which can make or break an educational program. The local school board may also have specific required equipment which is necessary to receive accreditation. The committee should construct a list of proposed equipment and identify information such as the type or brand name of the product, the estimated cost, and list the educational uses for their particular program. The following is an example of a partial list of equipment the committee might propose:

EQUIPMENT	COST (as of date)	EDUCATIONAL USAGE (all age groups)
F.M. Radio	$35.00	Used to listen to school system programs and to provide background music in the environment.
Film Strip Projector	$150.00	This is preferred over movies since the children can discuss the pictures being shown.

EQUIPMENT	COST (as of date)	EDUCATIONAL USAGE (all age groups)
Tape Recorder	$100.00	Used to develop language skills and for recording tests of children with limited hand mobility who are unable to write.
Primer Typewriter	$125.00	Can be used to teach occupational skill and develop hand coordination.
Movie projector	$250.00	Used to show educational films related to subject matter being discussed. Can also be used by the recreational department to show movies on weekend nights.

After all of the many items are listed, it will be necessary for the committee to evaluate each of the items with the assistance of the consultant and determine which of the items are most essential to the success of the program. If there is a question on the amount of money available for equipment, the committee should consider priority of the items and establish a system where the equipment can be purchased in phases.

A library is an essential part of any educational process. The ideal location for the library would be between the school and the bedrooms, in order to encourage the children's use of the facility. If the library is located where it will have adequate supervision, it can be left open all the time. Many children will enjoy taking their parents to the library to pick out a book to read at bedtime. Some of the older patients might want a book to read for awhile in the late evening. The library need not have a librarian at these hours, as long as there is someone

nearby to help a child get a book from the shelves, if he is unable to do it himself. The library should be a cheerful, comfortable, and semi-quiet environment which is conducive to study, reading, and quiet conversations. The books and reading materials should be located low enough to facilitate easy reach, encouraging children to select their materials independently (see Figure 13).

Figure 13

Easy Access to Materials Can Encourage Independence

SCHOOL AGE CHILD SUMMARY

ISSUE: Fears: Body Mutilation

PROGRAMMATIC: Provide professional counseling. See previous chapters.

COMMENT: Children at this age understand reasons for surgery but their fears are just as real and important.

ISSUE: Fears: Falling behind in school

PROGRAMMATIC: School: The hospital should provide educational facilities at the hospital. Coordinate efforts with the local school authorities. Teaching staff should be familiar with medical techniques and procedures. Consider the open or traditional classroom concepts. Decide on the number of classrooms needed and determine the maximum teacher/student ratio depending on the amount of individual care required by each patient. Consult an educational equipment specialist to develop appropriate list.

Library: Consider the hours of operation to facilitate evening and late night readers.

DESIGN: School: "Safe zone", locate away from medical areas; the school should look and be different from the rest of the hospital in terms of construction materials, choice of colors, noise level, etc.; size of room should allow for accessibility of wheelchairs, traction beds, and gurneys; environment should be varied and stimulating and conducive to educational processes; all equipment (chalkboards, chairs, tables, etc.) should be appropriate for the age group using the room. (See child dimension chart in appendix.)

SCHOOL AGE CHILD SUMMARY CONTINUED

Library: Locate near school and the patient rooms to encourage use; all books and materials to be accessible and within reach of child; provide spaces for conversations and independent study.

ISSUE: Patient Rooms

PROGRAMMATIC: Consider room assignment policy (if needed) regarding age, sex, handicapping problem, etc. If at all possible give the patient a choice of rooms. Staff should respect the patients newly developed sense of body modesty. Staff should encourage children to take responsibility for making bed, dusting, watering plants, etc.

DESIGN: Design should provide a variety of patient rooms; single for isolation, double, triple, etc.; avoid the use of "ward" type units; design can achieve semi-privacy through the placement of furniture or low walls while still allowing desired child to care-taker eye contact; provide work surface for homework and craft projects.

FOOTNOTES

[1]Author D. Colman, "Territoriality In Man: A Comparison Of Behavior In Home And Hospital," American Journal Of Orthopsychiatry 38 (Apr. 1968): p. 467.

[2]Nancy E. Hilt and William E. Schmitt, Pediatric Orthopedic Nursing (St. Louis: The C.V. Mosby Company, 1975), p. 179.

[3]Joseph De Chiara and John H. Callender, Time-Saver Standards For Building Types (New York: McGraw Hill Book Company, 1973), p. 327.

[4]Ibid. p. 337.

[5]Interview with Betsy Bezzeg, Bernalillo County Medical Center, Albuquerque, New Mexico, 21 June, 1977.

[6]Thomas J. Kenny, "The Hospitalized Child," Pediatric Clinics Of North America 22 (Aug. 1975): p. 588.

THE ADOLESCENT

Adolescence is often a misunderstood period of human development. It has been a fairly recent trend in the medical profession to produce medical personnel who are specifically trained and oriented to the physical and mental concerns of the adolescent. The field of adolescent medicine is one which is both interesting and vastly challenging. "Adolescence represents a unique and definable period of time in the life cycle characterized by statural and reproductive maturation, emancipation, and self-definition."[1] The term adolescence is often confused or combined with the process of puberty. While these two changes seem to go hand in hand, they are still very different. Puberty usually connotes the physical changes and growth of the individual. This development usually occurs one to two years prior to the time when the person enters adolescence. The term adolescence refers to the individual's psychological changes which include the quality of maturity and obtaining new attitudes about social interaction.

For the purposes of this thesis, adolescence will be defined as the period between the ages of twelve and eighteen years old; however, these age boundaries might fluctuate due to cultural modifiers. The following are some of the results of one study which examined the effects of cultural modifiers on adolescents:

"Inner-city youth seem to mature emotionally on all fronts more quickly than others. In rural communities adolescents also assume an adult life style at an early age, although social and religious prohibitions of premarital sexual practices appear to be more effective. Upper middle-class youths, however, tend to have a prolonged adolescence because of the emphasis and value placed upon a professional career and the persistent dependency occasioned by the many years of technical education required to achieve this."[2]

In the past, pediatric orthopedic hospitals have typically been considered to be a medical luxury by the health care community. As a result, these specialized facilities have been located quite sparsely throughout the United States, as is evident by the locations of the questionnaire respondents. The great distances between the facilities means that the hospital's area of service will encompass many different cultural, economic, and social segments of our society. The typical hospital in the southwest, for example, could expect to see patients who were Native Americans, Chicano, Anglo, and Black. These patients would come from large metropolitan cities as well as small rural farming and ranching communities. This diversified group of patients would be expected to conform to the institution's formalities and procedures regardless of their background. The repercussions of this institutional thought can be seen by the many individuals who view the typical hospital as the domain of the white middle class. This type of cultural problem is not restricted to the southwest region of the United States.

"One need only consider the unique situation encountered by Amish young people, Hasidic Jewish youth, or even first-generation Hispanic American adolescents to understand that one can evaluate neither the timing or quality of normal adolescents nor expected social and gender roles without careful attention to the particular set of cultural values that surround it."[3]

The patient should be seen as an individual rather than a statistic, category, or ward of the institution. Adolescents, in particular, who are developing cultural awareness and self-definition will rightfully rebel against any form of institutional conformity.

The adolescent in the hospital has his own set of special concerns and fears. The author believes that the primary fear is derived from a heightened sense of concern about body mutilation. This concern is different from that of a younger child since the adolescent is concerned with how this will mar his or her physical appearance and affect his or her relationsips with the opposite sex. Adolescents of all cultural backgrounds are typically very concerned with how they look and are sensitive to any deformations or abnormalities no matter how insignificant they may seem to others. One need only reminisce a bit to feel the sting of bewilderment and embarassment of having a pimple appear on the day of a big date. The adolescents in the orthopedic hospital, however, have to contend with problems which are far more psychologically devastating than a pimple. The manner in which his peer group will react and accept him is of primary importance in his mind. "In some ways, friendships with members of the same and opposite sex are of equal importance to a teen-ager as his relationships with his family. Thus, close friends, and the dating partner in particular, have a major vested interest and deep concern in the patient's welfare in the hospital."[4]

Partially as a result of peer group influences, the adolescent is often very concerned with falling behind in school. Adolescents in today's society are typically well aware of world situations

and place a great importance on being informed and knowledgeable about current issues. "Much as the very young child tactilely explores his body and his surroundings - in the process of discovery, definition, and even sensuous enjoyment - the young adolescent explores his intellectual abilities."[5] Society has traditionally placed a great deal of importance on the success of the student in school. Perhaps too often, persons are judged socially solely on their scholastic performance. The student who is already physically impaired will often attempt to spare himself additional unwarranted social criticism and abuse by succeeding intellectually. If the handicapped student falls behind in his school work, this is often attributed to some kind of learning disability rather than his missing a lot of school. Uninformed and often unconcerned persons generally have a hard time understanding that the physically handicapped person is not automatically mentally handicapped. James M. Renuk, who is a victim of cerebral palsy, recounts one of his childhood experiences in an article he entitled "Hear Me, Society: 'I Am Intelligent'."

> "I wanted to play with other kids on the block, but when I went up to them, they started to ask me questions like, 'What is your name?, Why are you moving like that?,' When I tried to tell them why, nothing but sounds came out of my mouth. They started to laugh and ape me and sometimes they would throw stones at me. So I was stoned because I could not speak the language of my society. So I was forced to play alone."[6]

It is a sad commentary of modern society that this type of social abuse continues.

Hospital patient surveys have indicated that there is an ever increasing number of handicapped adolescent patients each year in the United States. These surveys conclude that this

increase is due in part to the "increasing number of traumatic injuries, both accidental and secondary to violence. Thus, there is now a significant population of handicapped and chronically ill adolescents who must come to terms with their very real limitations in order to achieve a measure of self-reliance and maturity."[7] A positive note is that this particular group of adolescents has in many ways become the voice for patient rights in the hospital. This group of intelligent and often vocal individuals is making themselves heard to the benefit of all patients in hospitals. The adolescents are able to communicate their problems and needs in a diplomatic and sensitive way, and this expression is helping hospital planners to more realistically understand the problems of hospitalization.

> "It is remarkable how new ways of dealing with teenagers are being reflected in the hospital. In a sense, it is the teenagers who are showing the way, very much as in the psychotherapy with adolescents where the directions develop according to the patient we treat. The best description for this new approach is really 'taking pulse', for a flexible program is needed for a still unsettled personality."[8]

The adolescent patient, therefore, should be offered a reasonable range of options and alternatives from which to choose. These options, unlike those available to younger less mature children, can often include participation in making decisions concerning medical care. The patient in this way will assume some of the responsibility for the future implications of his decisions. This decision making responsibility could also be encouraged by the inclusion of adolescent participation on the hospital's planning committee. An intelligent and mature adolescent could provide a point of view which otherwise might be neglected or

or uncovered. A young person on the committee would also serve to bridge the sensitivity gap which is the root of the more publicized communication gap.

THE ADOLESCENT UNIT:

The planning committee should give special consideration to the selection of staff when discussing the hospital setting for adolescents. No matter how positive and appropriate the physical environment is, the desired effect will be minimized if the social attitude of the unit is not good. "Optimally, staff should have a liking of, interest in, and sensitivity to the adolescent - coupled with maturity, flexibility, and a willingness to 'tune in' to the patient and his activities."[9] The adolescent needs to trust and relate to the ward staff and feel confident that they have his best interests in mind. This requires a great deal of time, energy, and patience on the part of the hospital personnel. The personal demands of the staff are very great and require a person with altruistic concerns. Needless to say, this kind of person will be difficult to find, but what better example could the hospital present to the adolescent in his formative and impressionable years? Adolescents are typically well aware of positive personality traits and will appreciate these elements in the staff persons with which they work. The efforts in staff selection will, therefore, be noticed and appreciated by the patients.

The physical size of the adolescent unit will vary depending on the anticipated patient load. The hospital which provides adolescent units consisting "of between fifteen and thirty beds has been found to be economically sound."[10] Units which have

less than eight beds might isolate the patients away from activities and theraputic social interaction due to the low usage of the ward. This social interaction with peers and other social segments can be a primary ingredient in the involved process of rehabilitation. Adolescent patients will require extensive, individual, sensitive care and counseling which constitutes a great deal of time. Many patients will rebel if the unit is too large since providing this individual treatment will be difficult.

It has been a common practice in hospital design to segregate the adolescent completely from the other patients in the facility. While some division is desirable to encourage peer group interaction, total isolation of the adolescents can be therapeutically detrimental. Total social segregation produces an unrealistic and unnatural environment. Emma Plank states that, "We feel strongly that the age range on the ward should be wider than customary since children profit from at least part-time contact with others of different age levels."[11] Social age interaction can be accomplished in the design of the facility by including common areas such as adjacent corridors, recreation rooms, playgrounds, television viewing areas, and dining rooms. It is necessary for adolescent patients to be exposed to other age groups so that they do not forget how to respond to the more natural age mixing which occurs outside the hospital, and thus prevent social maladaptation (see Figure 14).

Perhaps the most desirable quality for the hospitalized adolescent is to allow him his identity. "At the University of Colorado Medical Center, before the new pediatric facility was built,

Figure 14

Social Interaction of Different Age Groups Can Be Beneficial for All

teen-agers were asked what they would like most to have included in the ward. Their own clothes and a place to keep them turned out to be the most reassuring and desirable feature for most of them."[12] Patients are often required to wear hospital issued robes and pajamas. This practice takes away one of the most individualizing badges of their independence: clothing. Clothes, as well as hair styles, have traditionally been symbolic gestures of the adolescent's taste and individuality. This symbolism is important to set him apart from the other patients so that he can remain an individual in his own mind during his hospitalization. If the patients are allowed to wear their own clothes, it will serve as a symbolic statement to visitors and friends which says "I am still me."

THE BEDROOM

For the typical adolescent at home, the bedroom is the center of daily activities. The bedroom is not merely a sleeping quarters but an expression of individuality. The bedroom is where the adolescent lounges, plays cards, visits with friends, goes for privacy, plays music, displays his art collection, and sometimes studies. The adolescent's hospital space should provide for the continuation of these normal activities. Territoriality in the bedroom is a primary concern for the adolescent patient. He needs to have a unique space which is his to modify, arrange, and call his own. The unique space should provide opportunities for self-expression and identity. Some of the items which are commonly on display in the teenager's room include posters of

rock stars, stuffed animals, autographed baseballs, last year's yearbook, a favor from the Christmas dance, a picture of the dating partner, a calendar with important dates such as spring break designated, a bulletin board with school events and a football schedule, awards for almost anything, a stereo with a selected repertoire of favorite tunes, and candles and incense. As a result of this type of eclectic interior decoration, neatness is sometimes sacrificed. Hospital policies, however, can be developed to assure that these qualities do not get out of control.

The location of the beds in the room is an important consideration. Many hospitals position the beds against the wall to allow for a large common area in the middle of the bedroom. The adolescent, however, would prefer to have his own space and be visited on his own turf. If he desires to enter another patient's space then he will temporarily assume the role of the visitor. This environmental factor allows therapeutic social interaction and role playing to take place. Beds, like other furniture, can also be used as visual dividers and provide distinct defensible territories in the room. The location of the bed by a window allows the patient a personal view of the outdoors. If the window has to be shared with other patients it tends to lose a great deal of its importance. No matter where the bed is located, there should be a telephone jack nearby. The telephone is the teen-ager's mode of communication with the outside world. The patient can use the telephone to keep up with activities of his peer group, have long conversations with his dating partner, and even call home occasionally (see Figure 15).

Figure 15

A Window and a Telephone Can Be Lifelines to the Outside World

The design of the adolescent unit should offer a variety of room accommodations. If at all possible, the patient should be given the opportunity to choose his room size and location. "Except for the seriously ill, dying, or contagious patient, teenagers do far better with one or more roommates than in a room by themselves."[13] It is sometimes difficult, however, to find a large number of patients who will constitute a congenial group.

Personality conflicts are a common and natural occurrence due to the differing backgrounds and social practices of the patients. For example, many adolescents smoke, and this can be a particularly offensive habit to other patients. Joni Eareckson describes this situation in her book as follows:

"Ann had lit up another cigarette. In the hospital, I had discouraged people from smoking around me. In Greenoaks, many of the patients smoked. To me, smoking was ugly, smelly, and something I wanted other people to do only in their own homes or rooms - not around me. I hated the choking smoke and acrid smell. But now I could claim only one-fifth of this room. There wasn't anything to do but get used to the smoke and make the best of the situation."[14]

Double rooms can alleviate this and similar situations. The patients are still able to have a roommate for companionship, yet the number of social problems are reduced. The patients are at the same time encouraged to participate in other activities around the unit so that they do not practice self-isolation. Some privacy, however, is a very desirable element, and the double room provides more opportunities for seclusion than the traditional large ward room.

The bathroom is perhaps the biggest source of invasion of patient privacy in the hospital. The design and location of the bathroom in the patient's room is important for both acoustical and visual privacy. Sounds of normal bodily functions, which may

penetrate hospital walls, can produce a particularly embarrassing situation for both the patient in the bathroom and the other patient who might be visiting with friends. Bathroom doors should be equipped with locks which will give the patient an additional sense of privacy. The locks, however, should be easily opened with a key from the outside in emergency situations. The doors in hospital bathrooms should swing out so that a patient who has fainted does not block the entrance preventing medical staff from getting to them. In addition, the entrance to the bathroom should be screened from the view of others in the main bedroom area. A good intentioned staff person who opens the door on an unsuspecting teen-ager and exposes him to the rest of the individuals in the room can embarrass and socially demean the adolescent. A screen is also helpful to wheelchair patients since many will need to leave the door partially open so that they can get back out of the close quarters. This partition should provide a path which is at least three feet wide to assure accessibility to the bathroom. The bathroom door should also be a minimum of three feet in width and be light weight with properly adjusted closures to accommodate easy handling.

Bathrooms are typically the epitome of institutionalism. These spaces are often cold, sterile, and hard environments. This is due primarily to the use of traditional construction materials such as ceramic tile, white fixtures, and Formica counter tops. Bathroom fixture companies are now offering a wide variety of colors, styles, and types of equipment which are economical, easily cleaned, and less institutional in nature. The planning

committee should consult several of these companies and request sales information about possible alternatives for hospital bathrooms. The traditional concept that white means sanitary should be closely evaluated when the committee realizes the positive stimulating effects which color can provide in the environment. The fixtures in the patient's bathroom should include a sink, a tub or shower, and a toilet. Many facilities also provide a larger central core bathroom in each unit with a free standing tub for patients who will require assistance. The toilet in the patient's bathroom should be located separately from other conveniences to facilitate privacy and allow bath areas to be used at the same time. Natural lighting and ventilation is also recommended for hospital bathrooms in regions of high humidity to prevent mildew and bacterial growths. The focal point in the adolescent's bathroom is the mirror. Adolescents who are typically very concerned with their physical appearance will spend many hours examining and primping in front of the mirror. A full-length mirror is desirable to enable the patient to examine overall appearance.

THE TEEN ROOM

The adolescents need to have a special place of their own for gathering. Many facilities provide a recreation room for patients, however, this is often "invaded" by younger children. The Children's Hospital Medical Center in Boston, Massachusetts was planning the addition of an adolescent wing and developed a questionnaire which was issued to its adolescent patients.

One of the questions asked was, "If you were to plan an ideal hospital unit for people your age, what would it be like in terms of space for recreation, materials, equipment, and staff?"[15] The responses to this questionnaire were quite detailed and enthusiastic. The planning committee was able to synthesize the information provided and formulate the following profile of the proposed teen area:

> "Scheduled recreational activities are coordinated by a full-time director and assistants. A program of group interaction in arts and crafts (i.e. leatherwork, ceramics, metal enameling, jewelry-making) is offered. Adolescents may gather in smaller groups for pool, table games, or 'rap' sessions, or they may play records of leaf through magazines; i.e., they are free to make their own choices at any time with a minimum of constraints on noise, orderliness, etc."[16]

It might prove worthwhile for the planning committee to conduct a similar survey of adolescent patients to develop a workable profile specifically geared to their patients. Adolescent involvement at the start usually assures better cooperation and participation in the future. The area should be designed <u>with</u> the teenagers, not <u>for</u> them.

A room which is specifically designated as the teen room can be conducive to opportunities for positive experiences. This space can facilitate opportunities for peer group interaction and enhance the use of positive coping mechanisms. Parents and hospital counselors may have a difficult time communicating and getting a message through to an embittered teenager. Adolescents, however, will usually listen to others of their same age when other attempts at communication have failed. Perhaps this is because, as the term "peer" implies, the adolescents are better

able to relate to each other on the same level as equals. They can give each other suggestions on what they would do, rather than what they must do, which is how adult advice is often interpreted.

Since the young people will want to be away from adult supervision it is suggested that the teen room be located away from the nurses station and other staff activity areas. The room should, however, be located close enough to facilitate tactful observations by the staff. The room should be designated by "architecture and furnishings that represent an appropriate compromise between the hospital world and the non-hospital teen-age world."[17] The types of activities which are provided should be non-structured to encourage the adolescent to choose his own activities or even lack of activities. Many teenagers do a great deal of television watching. The television should be placed where it is easy to adjust knobs and at the same time facilitate communal viewing. Otherwise, remote control should be considered. A large table which will not block accessibility can serve many purposes. The patients can use this surface for playing cards, working on arts and crafts projects, doing homework together, or just sitting and talking (see Figure 16). It has also been found that, "Access to facilities in which the patient may prepare simple snacks has been a highly successful and welcomed venture on every adolescent ward that has been able to provide it."[18] A sink, a small icebox, a hotplate, toaster, a few pots, pans, and eating utensils are all that is required to put the teen kitchen into operation. This area should, if possible, be open at all times so that patients can have coffee in the morning and a bedtime snack in the late evening.

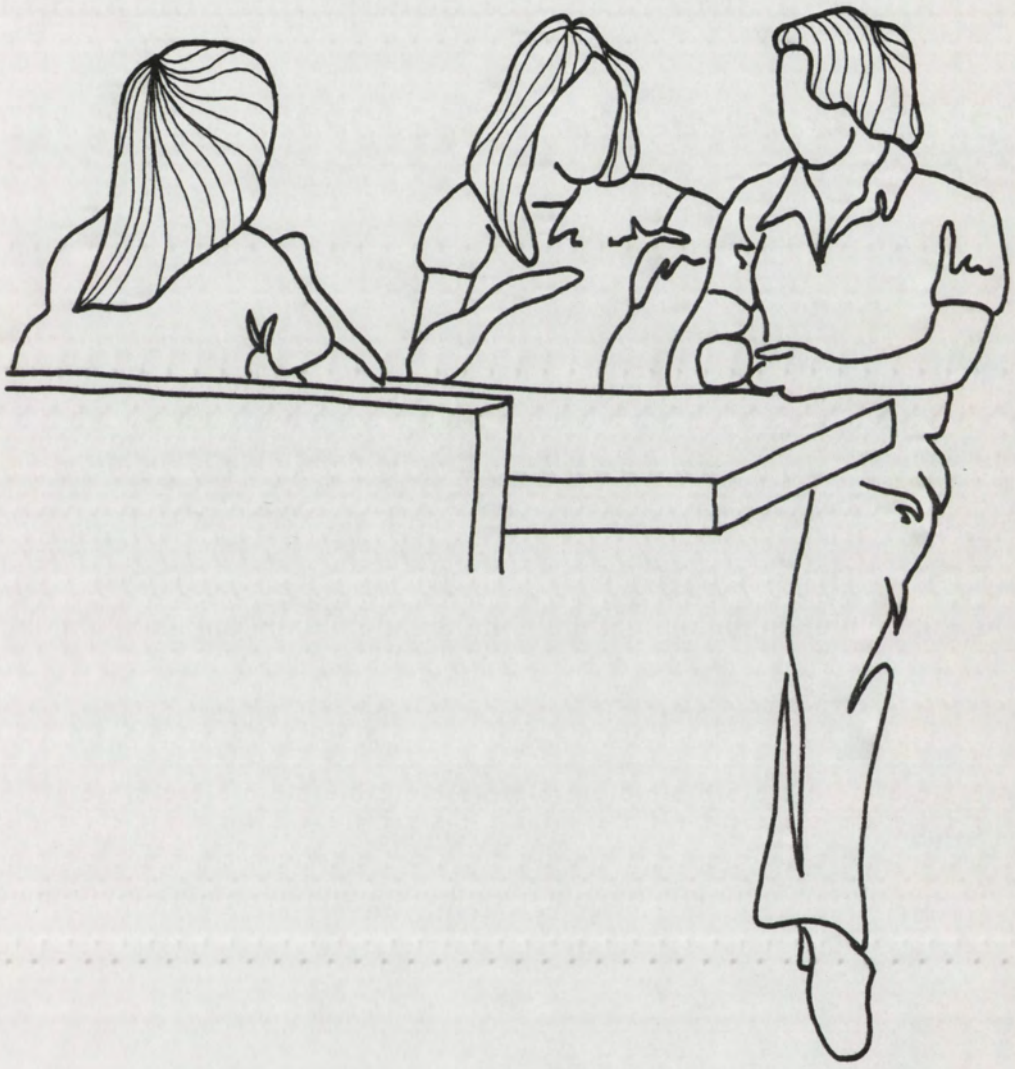


Figure 16

A Table is a Place for Peer Group Interaction.

Patient responsibility should be part of the bargain for including this type of area. Since this is a teen area, the teenagers should be encouraged to clean it up and take care of the equipment and materials provided. The committee should consider some teen room policies which support the staff if this privilege is abused by certain individuals.

Access to an outside area would also be desirable for sunning and fresh air. Many of the same activities which take place inside could also be accomplished in this exterior environment. A patio area where the patients can sit and talk or even cook hamburgers would be an exciting change of pace. If a portion of the area is covered it will facilitate year-round usage since the cover will serve as a sunscreen in the summer and keep the snow off in the winter. Caution should be given, however, to provide appropriate security hardware on the exterior door to this area to prevent entrance and even exiting after a pre-determined hour.

Depending on the teen room's location and proximity to other elements in the hospital, acoustical treatment of the room may be required. Peer group interaction often means loud vocal communication between many participants. In addition, televisions and stereos in adolescent areas are often played louder than the manufacturer's recommendation. Low-technology methods of sound control would include the design of the room's walls to meet flush with the underside of the structure, and the use of sound absorbing materials such as carpet, drapes, and acoustical ceilings (see Figure 17).

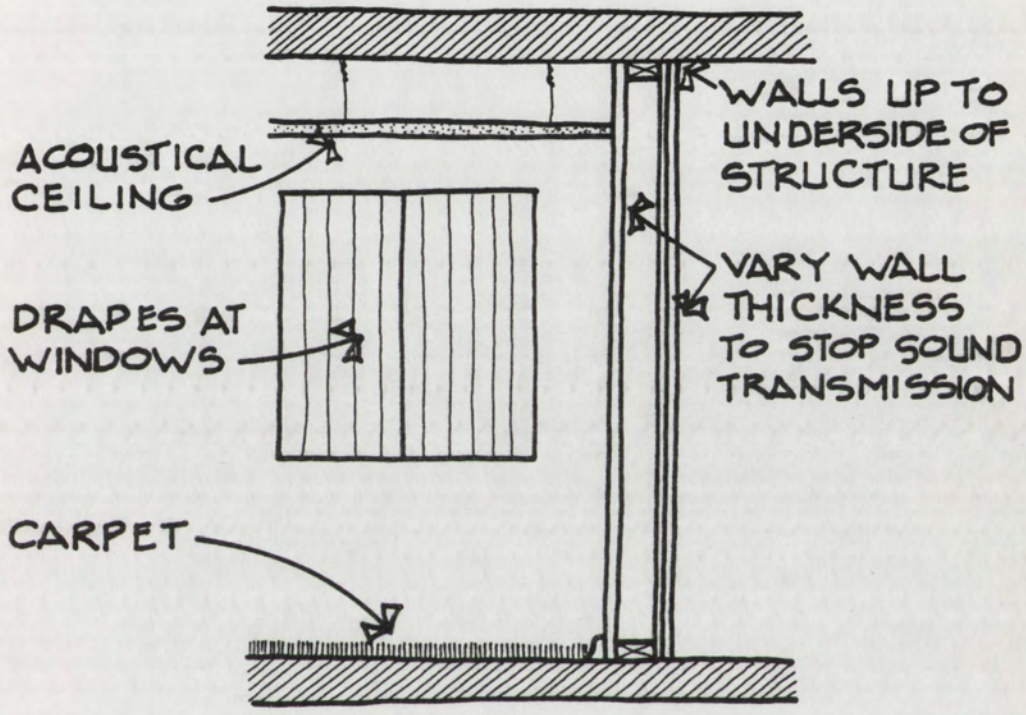


Figure 17

Simple Ways To Control Noise

OTHER CONSIDERATIONS

Young people at this age have a natural sense of curiosity about almost everything. The nursing station can be a particularly susceptible place for the nosy teenager to investigate. It is important, therefore, that all medical charts, operating room lists, lab reports, and any other confidential materials be kept out of the public eye. This is not to enforce a policy of secrecy, but to promote confidentiality for the well-being of the patients. Needless to say, extreme care should be given for the security of medications, needles, and syringes so that temptation need not be presented to the curious adolescent.

Teenagers need to think things out for themselves. There needs to be a quiet space where they can get off by themselves and reflect upon the events that are transpiring in their lives. Good intentioned parents, medical personnel, and friends are often in too much of a hurry to express their own feelings and opinions. This bombardment of advice can become quite frustrating and confusing for the young person. A quiet space away from roommates, parents, and nurses can allow the adolescent time to sort things out on his own (often a library can serve this purpose). If possible, the hospital should provide a small room which can be locked (but opened by a key from the outside) where the patient can be alone. The environment should be soft with mute colors and a view of the outdoors away from the hospital. Provide the patient with a place to sit and relax, a few magazines, and perhaps a radio. Small private nooks off the beaten path in a garden or small forest can also be used for private meditation.

ADOLESCENTS SUMMARY

ISSUE: Fears: Body Mutilation

PROGRAMMATIC: Professional counseling and encourage peer interaction to help work out problems. Visitors are very important to the adolescent for support and acceptance. Involve the adolescent in decisions about his own health care.

COMMENTS: The adolescent is concerned with how the body mutilation will effect relationships with the opposite sex.

ISSUE: Fears: Falling Behind in School

PROGRAMMATIC: See School Age Child summary chart. Staff should provide more opportunities for independent and structured study.

DESIGN: The adolescent student should have a separate classroom; provide areas for independent study and small group discussions; provide language carrels.

COMMENTS: There is significant peer pressure on the adolescent to perform well in the academic setting. Adolescents will not mix well with younger children in the school environment.

ISSUE: Cultural Modifiers

PROGRAMMATIC: Consider the areas from which potential patients will come and anticipate cultural barriers that the patient might encounter. Avoid policies which may be too regimented forcing uniformity and the loss of individuality of the patients. Staff should be familiar with cultural modifiers but work with patients as individuals rather than categories.

ADOLESCENTS SUMMARY CONTINUED

DESIGN: Bilingual signs and directions should be provided throughout the facility; graphics can be used to depict cultural themes.
COMMENTS: The adolescent is just finding out who he is. A radical change to a strict hospital environment can upset this self-realization process. Hospitals are typically thought of as "middle class".

ISSUE: Adolescent Unit: Bedrooms
PROGRAMMATIC: Hospital should allow for self-expression but develop policy regarding eclectic decorations and the appropriateness of elements used. Staff should be aware of adolescents' strong sense of territoriality.
DESIGN: Unit size should fall between 15 and 30 beds; use system of well defined territories as a means of social interaction: colors, partitions, furniture arrangment; preferred location of bed is by a "private" window; install telephone outlets near bed locations; provide a variety of room sizes but double is suggested; provide personal space; area for studying is required.
COMMENTS: The bedroom is typically the adolescent's center of activity.

ISSUE: Adolescent Unit: Bathroom
PROGRAMMATIC: Staff should be aware of the need for privacy.
DESIGN: Provide visual and accoustical privacy; door should not open directly into the room; provide proper hardware and door to swing out; mirror and grooming area should be separate from toilet area; provide a variety of color and type of fixtures.

ADOLESCENTS SUMMARY CONTINUED

COMMENTS: Bathrooms are typically institutional "sore spots" in the hospital.

ISSUE: Adolescent Unit: Teen Room

PROGRAMMATIC: Supervision of room requires "tactful patrols". Involve adolescents with the planning of this area. Consider adolescent questionnaire to determine preferences. Develop policy regarding outdoor space if provided in design.

DESIGN: This room should receive adequate acoustical treatment and be located away from patient rooms; provide a small food preparation area. Provide a T.V. viewing area; table may become central element in room: used for eating, study, individual projects, conversation, and table games.

ISSUE: Staff Sensitivity

PROGRAMMATIC: Consideration should be given for hiring staff that possess special qualities: patience, unselfishness, genuine care for the patients as individuals, and have expressed desire to work with adolescents.

COMMENTS: Adolescents more than any other age group need to feel close, to trust, and to communicate with the staff members.

ISSUE: Adolescent Individuality

PROGRAMMATIC: Consider allowing the patients to wear their own clothes as a symbol of their individuality. Staff should at all times encourage self-expression.

ADOLESCENTS SUMMARY CONTINUED

ISSUE: Adolescent Curiosity

PROGRAMMATIC: Staff should be aware of problems which occur with information leaks.

DESIGN: Nursing Station: Provide lockable storage for charts, medications, etc.

ISSUE: Meditation Area

PROGRAMMATIC: Consider the need for the patient to have personal time for contemplation.

DESIGN: Small private area secluded from activity areas; comfortable seating; soft environment; window to look out on nice view or landscaped area.

COMMENTS: Parents, staff, and friends can place a great deal of pressure on adolescents. Patients need to work out problems on their own.

FOOTNOTES

[1]Adele D. Hofmann, R. Becker, and Paul H. Babriel, The Hospitalized Adolescent: A Guide To Managing The Ill And Injured Youth (New York: Free Press, 1976), p. 4.

[2]Ibid. p. 17.

[3]Ibid. p. 17.

[4]Ibid. p. 52.

[5]Ibid. p. 10.

[6]James M. Renuk, "Hear Me Society: 'I am Intelligent'," Albuquerque Journal, 22 January 1977, sec. B, p. 1.

[7]Hofman, The Hospitalized Adolescent: A Guide To Managing The Ill And Injured Youth, p. 5.

[8]Evelyn K. Oremland and Jerome D. Oremland, Effects Of Hospitalization On Children: Models For Their Care (Springfield, Ill.: Charles C. Thomas Publisher, 1973), p. 164.

[9]Hofman, The Hospitalized Adolescent: A Guide To Managing The Ill And Injured Youth, p. 94.

[10]Ibid. p. 95.

[11]Emma N. Plank, Working With Children In Hospitals (Cleveland: The Press Of Western Reserve University, 1971), p. 9.

[12]Carol B. Hardgrove and Rosemary B. Dawson, Parents And Children In The Hospital (Boston: Little, Brown and Company, 1972), p. 216.

[13]Hofman, The Hospitalized Adolescent: A Guide To Managing The Ill And Injured Youth, p. 92.

[14]Joni Eareckson with Joe Musser, Joni (Minneapolis: World Wide Publications, 1976), p. 60-1.

[15]Louis Marigold and Frederick H. Lovejoy, "Adolescent Attitudes In A General Pediatric Hospital," American Journal Of Diseases Of Children 129 (September 1975): p. 1049.

[16]Ibid.

[17]Oremland, Effects Of Hospitalization On Children: Models For Their Care, p. 11.

FOOTNOTES CONTINUED

[18]Hofman, The Hospitalized Adolescent: A Guide to Managing The Ill And Injured Youth, p. 98.

PARENT PARTICIPATION

As has been described in previous chapters, children of all ages have many fears and anxieties about coming to the hospital. The consequences of these prolonged emotional stresses can be psychologically detrimental and have serious effects on the patients' physical recovery. The effects of hospitalization are quite varied for each individual depending greatly on the reason for his hospitalization and the length of time he must stay in this strange environment. Many children in the hospital are anxious, insecure, and at times may become very difficult to manage. Some children will cling desperately to their mothers while others will take out all of their frustrations and aggression on the mother. It is also common for patients to sleep poorly, eat irregularly, and even throw temper tantrums. While the child's behavior is often unpredictable it should be obvious that none of these uncharacteristic behaviors are in the least bit helpful to the healing process. In many ways the child's alterations in behavior patterns are his way of trying to communicate with those around him.

"For generations the distressed behavior of small patients provided a fretful background to the work of doctors and nurses, but was tolerated because there seemed to be nothing to be done about it - and undoubtedly doctors and nurses became accustomed to the loud cries and cot-shaking of young patients when newly admitted. Furthermore, within a few hours, several days, perhaps longer, fretting children usually settle down."[1]

Perhaps it is time for us to listen to those cries.

Although separation from the family has long been identified as one of the primary fears of hospitalized children, hospitals have traditionally had quite restrictive and sometimes even prohibitive visitation policies. Until twenty-five years ago, it was quite common in this country to find hospitals which discouraged parents from seeing their children for the first month of their hospitalization. This period of time was felt to be necessary to "bring the child into a state of 'forgetfulness' where he would not be upset when his parents were then allowed to visit."[2] This concept was perhaps a product of the Victorian influence which disdained public display of emotion even for children. The problem with the separation period theory was that some children did not forget their parents and even worse they did not forgive them. The child, justifiably so, felt that he had been abandoned by those he loved and was being punished for something over which he had no control. While love might partially heal the wound, the child could remain permanently scarred with doubts and fears of repeated abandonment.

The advent of antibiotics seemed to be a major step in opening hospital doors to visitors. Parents were allowed to make visits to see their child but strict visitation regulations remained as intimidating obstacles. Unfortunately, this strict control of hospital visitation remains today. Only three of the fourteen questionnaire respondents indicated that they encouraged open visitation for parents. Each of the eleven remaining hospitals had very formal visitation policies. One facility, for example, stated that parents and visitors could see the patient only from

2 PM to 4 PM on Tuesday, Thursday, Saturday, and Sunday. This is a total of eight hours out of one hundred sixty-eight which the child had to spend in the facility each week. The other hospitals were not quite as restrictive; however, the mere presence and enforcement of a visitation policy is a great deterrent to family participation.

Except for the instances where facilities have loosened their visitation hours, hospital policies and practices have remained relatively unchanged over the last twenty-five years. To say that a facility has parental participation and to actually practice it are two different things. For example, ten of the questionnaire respondents indicated that parents were able to participate in the care of their children. The most common means of parental interaction with the child was in feeding, bathing, and reading to the child. It is important to note, however, that while these facilities allowed these limited forms of parent participation, there were still many obvious features which discouraged this activity. These were the same facilities which enforced a strict visitation policy which severely limited the parents' time on the ward. In addition, ten of the responding hospitals also stated that there were no accomodations for parents either at the hospital or in surrounding areas. These are examples of subtle institutional reminders which make distinct, negative non-verbal statements to parents and indicate just how much their presence on the ward is desired (see Figure 18).

It has been a common attitude on many pediatric wards that "a parent should be seen and not heard."[3] Parents of hospitalized

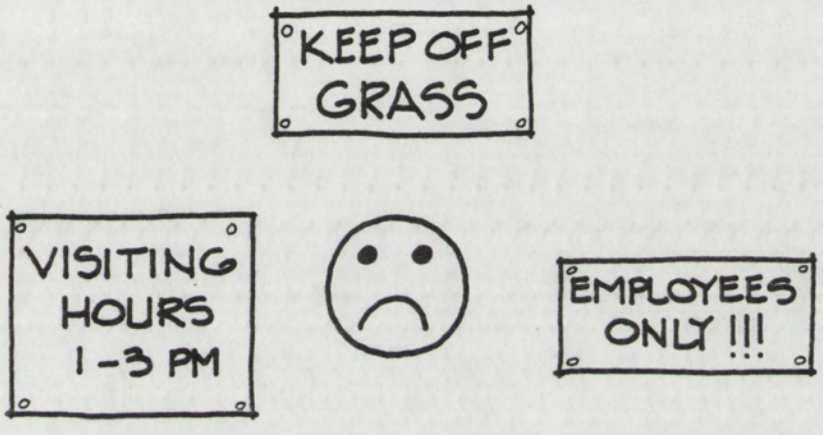


Figure 18

Avoid Negative Nonverbal Statements

children are often seen by the medical staff as impediments to the systematic functioning of the ward rather than as collaborators in the care of the child. This opinion is especially evident in hospitals where parental visitation is restricted.

> "Limited visiting hours, circumscribed areas in which parents are allowed, and strict adherence to the rules, backed by authority, can keep parents from interfering with routine and keep children relatively quiet and obedient. It is thus not surprising that many institutions find it easier to carry out such policies, in doing so ignoring the obvious fact that hospitals were founded in order to better the health of patients, not to add emotional trauma and developmental retardation to the physical disabilities that brought them there for medical care."[4]

Parent participation in the hospital, while no longer a new idea, still remains an underdeveloped concept. The Platt report, which was a study of hospitalized children in England, stated in 1959 that, "a) visiting to all children should be unrestricted, and b) that provisions should be made for mothers of children under 5 years of age to accompany them into the hospital to help in their care and prevent the distress of separation."[5] The wheels of institutional change have been slow to move, and therefore, the eighteen years since that report have provided only a few signs of progress. It is perhaps ironic that parental participation has long been a common occurrence in much less developed countries around the world. It is taken for granted in Vietnam and most South American countries that as the child goes to the hospital so will the mother and often many of the relatives. "These simpler cultures have not obstructed the natural relationships between the mother and her sick child."[6]

The doors of children's hospitals are just now beginning to open to the idea of parent participation in this country. Health

care professionals are beginning to accept the importance of unrestricted visitation for the wellbeing of both their patients and their families. When the parents are involved with the child during the time of hospitalization, the child often shows a greater interest in getting well. This is especially important in the orthopedic hospital where proper patient attitude is essential to accomplish the many grueling and frustrating hours of physical rehabilitation. A study at the University of Kentucky Medical Center found that, "The average stay of a patient is 9 to 11 days, while on the care-by-parent unit the average stay is 4.2 days."[7] The results strongly indicate that the patients who were receiving assistance and support from their parents were progressing much faster and were able to return home sooner.

Perhaps the most difficult problem when planning a parent participation unit concerns the clear definition of the roles which the staff and parents will play on the ward. In order for the planning committee to define these roles it is important to first examine how both the staff and the parents feel in the hospital setting.

HOW THE PARENT FEELS

Parent participation should be considered a very beneficial process for both the patient and the parent. Parents who are actively involved in the care of their child often get through a serious emotionally stressful situation with a lessened amount of psychological damage. "Mothers were, in the past, so often encouraged to increase their guilt reaction to their child's illness by leaving it in the hospital and by being left feeling helpless when their

mothering tasks were taken over by the hospital."[8] Concern for the child, combined with guilt, frustration, and a strange new environment could lead to irrational and sometimes paranoid behavior. Parents often feel that the medical staff blames them for the child's problems. The parent in his own mind becomes the primary suspect and feels as though he is being watched and observed so that he does not do any more harm to the child. Parents are also confronted with self-doubting questions like, "If I had only known?"' or, "If I had only brought him to the hospital sooner!"

Many parents feel that they are physically in the way of the medical personnel. It is not uncommon to visit a pediatric unit and find parents standing in the hall, sitting on a radiator, or laying on the floor next to their child's bed for lack of better accommodation. Since hospital spaces are seldom designed to accommodate parents, they often interpret this as a sign that they are not wanted. Parents will normally tolerate this rejection and the inconvenience so that they can be with their child (see Figure 19).

As a result of the impersonality often found in institutions, parents become concerned that their child will not receive the proper attention and care if they are not there to see that things are done. As far as the parent is concerned there is only one patient on the ward: their child. Parents will often ask the nurse to do things like take the child's temperature or change the bandage. Some parents will inquire about when the doctor will be back, or if the nurse plans to feed the child. With all of this constant interruption and questioning, the nurse can soon

Figure 19

The Lack of Spaces for Parents Can Make a Visit Most Uncomfortable

become quite frustrated with the persistent parent. If there is a conflict with the nurse about neglecting their child, the parents will have additional concerns about the nurse's possibly victimizing their child to get back at them.

The parents' problems are compounded by the fact that they too, like their child, are in a strange new environment. One parent described the fear of the strange hospital environment as the Bloomingdale syndrome. "It's the feeling of vastness, of trying to find your way around in a big place - like shopping in a department store."[9] A large institutional building can become a frustrating experience when a visitor tries to find his way around (see Figure 20). The responses from the questionnaire indicated that the most common method for a visitor to orient himself was to ask a receptionist for directions. This is not usually a very effective way to convey information to the nervous and disoriented parent. Many parents will be too shy to ask for help and prefer to wander aimlessly around the facility until they accidentally happen upon their destination. To alleviate orientation difficulties, it is suggested that the parent should be provided with a hospital handbook prior to the child's admittance. The handbook should include information about transportation arrangements to and from the hospital, what to bring to the hospital for the child and themselves, and suggestions about where to stay and eat while in the hospital. The booklet should also have directional information about how to get around the facility.

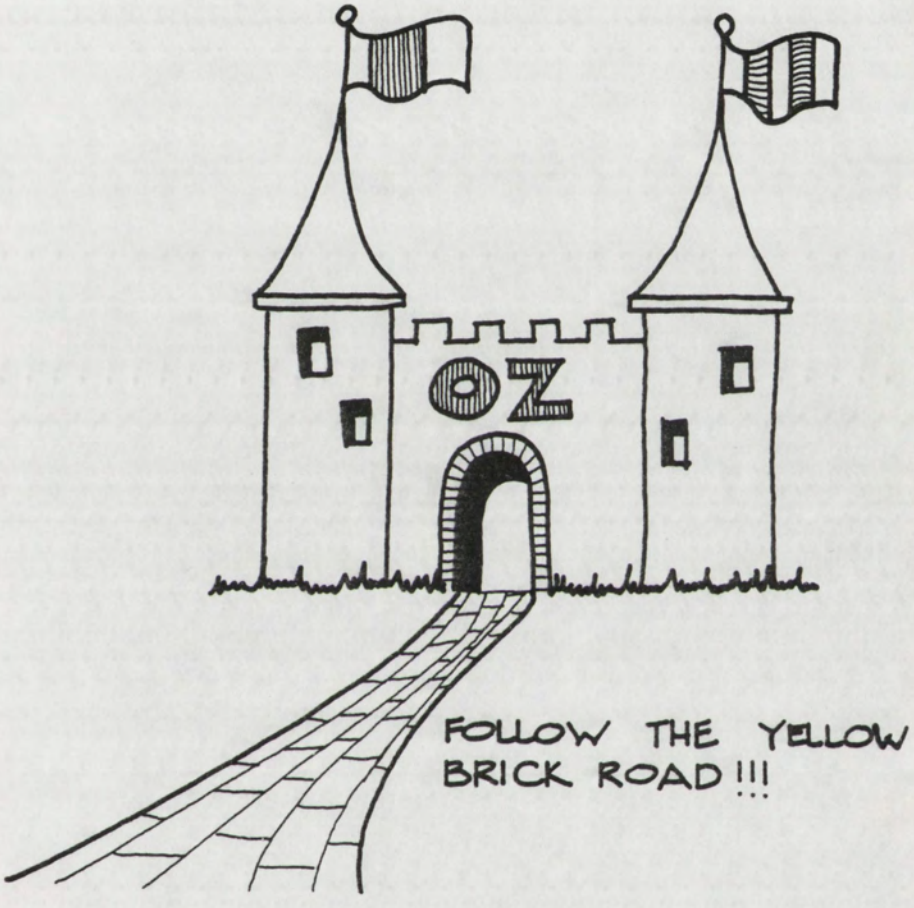


Figure 20

How Will the Hospital Visitor Find His Way?

"The Living-In Coordinator at the Johns Hopkins Hospital supplies parents who live in with a remarkably complete map of the main floor of the hospital with particular reference to the most useful areas, from the information desk by the entrance and the cashier to telephones and a post office. Not only is the cafeteria plainly marked, but its hours of service are listed, and the locations of the hospital library, which is available to parents as well as hospital personnel, the swimming pool and tennis courts and the outside entrances are shown."[10]

The handbook is neatly illustrated for persons who may not be able to read the text, and it is sent to the parents prior to the time the child comes to the hospital. It provides an excellent opportunity to say, "You are welcome here", even before the parent arrives at the facility. The hospital also provides guidance and information services for the parents if there are any problems after they reach the hospital.

THE STAFF HAVE FEELINGS TOO

"The nurse, skilled and trained in her profession, is an authority in the pediatric unit."[11] The patients and their parents are placed in a precarious position and need someone in whom they can put their trust. The nurse, therefore, is the central figure on the ward and the person most accessible to the inquiring parents. This authority position, needless to say, places a great deal of unwanted pressure on the nurse. If things go according to plans for the patient, she will be praised by the trusting and complimentary parents. If things go wrong or the child does not respond to treatment as anticipated, the nurse will become the target for the parents' aggression release. Thus, the nurse is placed in the tedious position of either becoming the heroine or the villain.

The nurse's portrayal of the super-human figure is severely hampered by the fact that she is, in reality, a human herself. "She cannot leave her feelings behind when she enters the unit: some children appeal to her more than others for special reasons, some doctors appear to respect her less than others, and some families arrive at a busy time or during a crisis."[12] It would be very difficult and realistically undesirable to find personnel who did not have emotions and react to the different situations which occur in the unit.

The nurse is expected to perform many technical and complicated tasks within a set schedule. Inquiring parents are often cited as the cause for the nurse falling behind on her routines. If tensions and pressures are allowed to build up over a period of time the nurse will, like any normal human, require an aggression release. The parent who is largely responsible for the nurse's frustrations can become a likely target. This kind of aggressive interaction is not healthy for anyone concerned and can be a catalyst for bad morale and attitudes on the ward. It is not surprising, therefore, to find attitudes like the following expressed by a pediatric nurse: "The children behave much better when their parents aren't here. We don't have any trouble until they show up, and the children quiet down as soon as the parents go away."[13]

As it can be seen, both the parents and the staff have frustrations and concerns which, if they are left to grow and flourish, may affect the hospital environment adversely. It is necessary to educate both the parents and the staff on methods in which parents can work as a part of the health care team. Many

hospitals are now using a Child-Life worker to fill this gap and work as a liaison person between the two groups.

THE CHILD LIFE WORKER

"Although the primary concern of the Child Life Department staff is with the play and school programs and with creating a setting in which children have an optimum opportunity for growth within the hospital setting, their work is closely linked with that of the medical and nursing staff."[14] The Child Life Department at the Johns Hopkins Hospital holds regularly scheduled meetings with all of the various medical departments from surgery to the fourth-year medical students. The Child Life Department staff is responsible for making presentations and leading discussions on the advantages of parental participation. The medical staff receives information about new educational techniques and methods in which to communicate with the parents. The Child Life worker is also very aware of the concerns of the different parents and is able to work out reasonable compromises as problems arise. This process is greatly enhanced by the monthly planning and strategy meetings in which both hospital personnel and parents are present.

As a result of this kind of coordinated and sensitive effort, facilities are beginning to see growing cooperation on the hospital ward for the good of all. Mrs. Mary Sue Jack, the assistant head nurse at the intensive care unit at the University of Colorado says, "It doesn't make our work easier to have the parents, but it is more rewarding. Pediatric nursing is really seventy-five percent parents - they're so much better for the child."[15] Through

the work of dedicated individuals the concept of total health care can grow from a mere idea into a way of life.

HOW PARENTS CAN HELP

The mother in our western society is traditionally the closest person to the child. She is typically responsible for the child's nutrition, social habits, attitudes, care, and affection. As a result, "Every mother knows the idiosyncracies of her own child and can anticipate his needs in a way that most skilled nurses cannot."[16] The University of Oregon Medical Center issues a questionnaire to parents when the child is admitted to take advantage of the mother's special knowledge.

> "On the child's admission, parents complete a child information sheet and the nurse interviews them. We attempt to learn what foods a youngster likes and dislikes, whether he uses fingers, cups, bottles, or utensils to eat, and what he is fed when he is ill. In addition we inquire about everyday rituals and the child's fears about his hospitalization."[17]

The use of this questionnaire and interview session has proven to be beneficial for all concerned. The child is happier by having things to which he is accustomed and his social growth patterns are not hampered. The staff has a better idea about the idiosyncracies of the child and a better comprehension of the amount of stress which hospitalization has placed on both the child and his parents. The parents are reassured that they are in fact an important element in the care of their child from the first moments of hospitalization and this aides in alleviating natural suspicions and paranoia.

After the child is on the ward the parents can also assist in many of the necessary daily duties. Many parents feel that

if they are busy and they are performing a good and useful function then they are not in the way. The orthopedic hospital questionnaire indicated that the most typical means of parent participation were limited to non-medical tasks. The pediatric unit at the Bernalillo County Medical Center in Albuquerque, New Mexico has found that parents can perform many additional tasks in the care of their child. Many of the parents are responsible for taking temperatures and marking the results on the medical charts, some administer medication at the appropriate time intervals, and a few parents in the post-surgery room are even responsible for reading monitors and watching skin coloration for any changes or irregularities.

Parents can also be very helpful in post-hospitalization care. All of the responding hospitals indicated that there was some post-hospitalization instruction given to the parents but that there was no formal program for such instruction. The most common instructions given to the parents of the orthopedic patient were cast care and the changing of bandages. It would be a good idea to consider giving instructions in physical therapy to assure that proper exercises are done while the child is not in the hospital. Instructions in sanitation and basic hygiene procedures may also prove beneficial. Hospitals should seek to take advantage of this opportunity for parental instruction while both the child and parent are at the facility and can be assisted by the medical personnel.

Parents can also be a great aid when language seems to be a barrier. Many children speak in a child's language or baby talk which is only comprehensible to someone who is close to them.

Other children may even speak a different language than the hospital staff. While it is not always a sure bet that the parents will be bilingual, the parents can often handle the situation more maturely and not panic. The child will be reassured to hear his parents speak in their common language even if it is not spoken in the normal context of their home environment.

ACCOMMODATIONS FOR PARENTS

The Living-In-Program at The Johns Hopkins Hospital in Baltimore, Maryland, is perhaps the fastest growing and most successful unit of its kind in the United States. The parent living-in service is now being used by thirty to forty percent of the patients seen at the hospital. Since the parent participation program has progressed so quickly, the facility is now having a few difficulties which may have been avoided if the unit had been planned in the beginning. Ms. Glenn Ann Martin, the Living-In coordinator at the hospital, explains in a letter to the author that,

"The two main obstacles we have experienced are: (1) lack of adequate lounge facilities for parents and (2) absence of alternative care facilities for siblings of the hospitalized child. We do have waiting areas for families, but they are open, with little or no provision for the privacy a family may need at the time of personal crisis. Also, because the areas are open and in the main traffic flow pattern, it is unsafe to have coffee pots or other appliances for parent convenience available."[18]

These are just a few examples of planning mistakes which have been realized by re-evaluation and thought. The planning committee which is considering a new facility should seek the advice and recommendations of previously planned facilities to avoid making the same kinds of mistakes. The following are hospitals which

are a good representation of facilities which offer progressive and developing parent participation programs: The Henrietta Egleston Hospital for Children, Atlanta, Georgia; University of Kentucky Medical Center in Lexington; Boston Floating Hospital for Infants and Children; The Johns Hopkins Hospital in Baltimore; and the University of Colorado Medical Center in Denver.

Parent participation programs are still in various stages of development and experimentation. Many facilities are trying to determine what will work best for their particular program. To date, the most common parent participation programs include accommodations for both short and long term visitation. Short term visitation usually involves a parent who brings his child to an out-patient clinic at the facility. Long term visitation has been encouraged by providing accommodations for parents to stay in the unit room with the child.

Specialty clinics are a growing element in the services provided in the pediatric orthopedic hospital. Specialty clinics include specialized orthopedic problems such as hand problems and scoliosis as well as utilizing plastic surgery, prosthetics, neurology, urology, and psychology. Thus, out-patient waiting rooms where these patients come have become an important space in the functioning of the orthopedic facility. Many of the questionnaire responses stated that in recent years they have had to expand and remodel their out-patient clinics to accommodate the demands for their services. While observing the Carrie Tingley out-patient clinic in Truth or Consequences, New Mexico prior to its remodeling, it was found that the most common activity of the visitors was

in fact, no activity at all. Many of the visitors just sat in a daze and stared off into the distance. The positive activities observed which seemed to bring the visitors out of their mental isolation were such things as a coffee pot, reading materials, and a children's play area. (The results of a clinic survey are provided in the Appendix section.) The design for the new out-patient clinic attempts to emphasize these activities and encourage the visitors to become more involved with the clinic environment.

The waiting area in many hospitals is typically institutional in nature with many of the same problems. The waiting room is normally a noisy and busy environment. It is very important, therefore, to separate the seating areas from the major pedestrian traffic patterns to reduce confusion and congestion. The seating should also be arranged in a way which will limit wasted floor space. In addition, the type of seating provided should be evaluated for its territoriality qualities. For example, couches and seating which is grouped together tend to become the territory of a family. Single seating, on the other hand will not allow any one group to dominate the entire area (see Figure 21). Finally, the arrangement should avoid positioning two chairs directly in front of each other since this tends to force eye contact and make people uncomfortable.

It is also beneficial to provide a variety of areas for waiting other than the main waiting room. Visitors might enjoy outside spaces such as a playground or a picnic area if the weather is nice. Snack rooms with a selection of drinks and foods are always heavily used. A smoking area away from the main waiting area would

Figure 21

Avoid the Use of Wasteful Fixed Seating

also be helpful for those who wish to indulge. Many parents, especially those who have had to travel a great distance to get to the hospital, may prefer to stand or walk. The Presbyterian Hospital in Oklahoma City provides a "pacer" corridor for this purpose. "A long, wide, carpeted 'pacer' corridor is located adjacent to the family waiting room, running parallel to the surgical suite. The corridor and the waiting room provide views of the terraces, the gardens, and the city skyline for the benefit of family members and surgical staff members."[19] The idea of all of these suggestions is to provide a variety. These different spaces all provide the visitor with a choice which is contrary to the institutional system.

Perhaps the biggest concern of parents who come to the clinic is what to do with their other children.

> "Frequently brothers and sisters of the hospital patient are simply ignored during the whole transaction. For it is quite true that they play little visible part in the total scene and may not even come to visit. But one needs to keep in mind that siblings are also subject to substantial anxieties about what is happening."[20]

Ms. Glenn Ann Martin indicates in her letter to the author that,

> "The sibling care facility is something that we have considered but as yet have developed no workable plans. There are circumstances in which families are allowed and encouraged to bring their children under twelve years of age to visit the hospitalized child. We run into management difficulty on some units when a parent brings siblings for the day and expects staff members to assume baby sitting or supervisory roles."[21]

The planning committee should consider the possibilities of including a sibling care area in the hospital to alleviate some of the staff overloading on the wards. If there are not too many siblings, some facilities have found that they can encourage

the siblings to join in the playroom activities or visit the hospital playground.

When the child is hospitalized there are many additional considerations for the parents. Many parents feel that they must be with the child at all times. Accommodations should be provided for the parent to live on the ward in these cases. According to the questionnaire responses from hospitals now providing this type of parent participation unit, it is recommended that the unit should accommodate approximately twenty percent of the total patient load. Some of the responding facilities indicated that they are now using compact fold-away couches in the rooms. These versatile couches provide seating during the day and a place for the parents to sleep during the night. Parents who stay on the ward will also need storage space for their personal belongings and a bathroom for cleaning up. If the bathroom is provided in the patient room the fixtures will have to be the right size to accommodate both the child and the adult. This can become expensive and requires a great deal of additional space. As a result, it is recommended that a separate parent bathroom be provided elsewhere on the ward. The following is an example of the bathroom accommodations provided at The Johns Hopkins Hospital:

"On alternate floors there are dressing rooms for the parents, which are used by those who live in. Each room has a large dressing table shelf with a mirror, good lighting, and hooks for clothes. A tiled shower opens on each, and the hospital supplies towels and washcloths. These rooms are particularly notable for the space in which the parent can bathe and dress in privacy."[22]

The parent/patient room can be designed to allow more privacy than the normal patient room. The parents will feel more

comfortable if they know that they are not constantly being observed by the staff. The child will no longer need constant eye contact with the caretaker since the parent will be with him most of the time. It is the author's opinion that the most successful parent participation rooms thus far have been the combination of accommodations for two patients and two parents in the same area. This provides many excellent opportunities for social interaction for both the children and the adults.

It is important that the parents be given opportunities to get away from the child occasionally. Often as pressures and tensions build these emotions can be transmitted to the child. The parent at these times is often doing more harm than good by being with the child. One helpful suggestion to alleviate this problem would be the provision of a parent lounge on the ward. This lounge need not resemble the traditional waiting area or the smoke filled teachers' lounge at public schools. The lounge might be designed to resemble a kitchen which is the main focal point in many homes.

> "In the family participation unit at Boston Floating Hospital for Infants and Children and in the Care-By-Parent unit at the University of Kentucky, the kitchens where the parents make themselves tea or coffee at any hour, and where they can find fruit juices and ice cream for the children, become a focus of neighborliness. Parents unfamiliar with the hospital world are at least familiar with kitchens, and as they go through the gestures of finding cups and spoons and washing up, they are reassured by the routine much like home."[23]

Besides being a food processing center the kitchen on the ward becomes a social interaction and gathering place. There are times "when non-professional counseling can be extremely beneficial for the parents and the child."[24] Parents of hospitalized

children who are going through similar complications and frustrations can often be very supportive to each other. The Children's Hospital Medical Center of Boston encourages this type of activity by providing public transportation to various points of interest in the city. Parent groups are encouraged to take museum tours, go to church on Sundays, visit historic sites, and even shop at various shopping areas. This interaction gives the parents a chance to talk and most importantly get away from the hospital for a while.

Parents will often require a private space for quiet contemplation during peak stress periods. Many hospitals provide a small chapel for this activity. The chapel, however, should not be the only place for the parents to be alone. A small, informal, comfortable room for two or three persons to sit and relax would be an appropriate setting for a family to be alone.

Some facilities are experimenting with units for parent participation which are called "Hostels". These units are particularly beneficial for out-of-town families. The parents are provided a room away from the pediatric unit where they can stay while taking care of their child. If there are any problems there is a nurse available on the floor to help out twenty-four hours a day. The room itself is set up similarly to a hotel room with areas for sleeping, reading, and a bathroom. The parents particularly enjoy this type of room for the privacy which it allows. It is also typically less busy and confusing than the traditional unit. The family is able to function together without constant supervision similar to their activities at home. Some of the hospitals

providing the hostel unit have also experimented with the concept of a sliding scale fee system for medical services. The parents do not have to pay the high cost of professional services for the tasks which they are able to accomplish on their own.

PARENT PARTICIPATION SUMMARY

ISSUE: How to encourage parent participation

PROGRAMMATIC: Consider all "non-verbal" statements which might discourage participation. Staff awareness workshop or strategy meetings to consider ways in which parent can be helpful. Consider "open" visitation policy. Child Life Department to coordinate strategy meetings and efforts. Pre-admission booklet with important information and map of facility (see Appendix). Admission questionnaire for parents to fill out regarding child's preferences.

DESIGN: Avoid the use of prohibitive signs such as: Keep Out, Stay Off The Grass, Staff Only, etc.; provide directional graphic system to help visitors find destination; clearly mark important areas: bathrooms, clinic, Xray, lab, castroom, playroom, dining room, etc.

ISSUE: Short Term: Out-Patient Clinic

PROGRAMMATIC: Provide sibling care coordinated with playroom program. Find out what visitors do in the clinic. (See clinic survey in Appendix). Encourage the use of outdoor spaces when the weather permits. Study clinic procedures to insure simplicity. Staff should be as courteous as possible.

DESIGN: Provide a variety of spaces to wait; include spaces for coffee pot, magazines, and snack room; provide outdoor spaces: picnic, walking, play; seating should be comfortable and arranged to prevent boredom but not overstimulating to cause increased anxiety.

PARENT PARTICIPATION SUMMARY CONTINUED

COMMENT: The out-patient waiting room is where a great deal of anxiety and tension is felt by the visitors.

ISSUE: Long Term; Live-In Program

PROGRAMMATIC: Consult existing Live-In programs for advice. Develop ongoing strategy sessions with staff on how to deal with patients and parents. Understand the value of parent participation for both the patient and the parents. Child Life Worker to work with the parents and encourage usefulness and continued participation. Provide post-hospitalization program for parents. Provide a program for parents to leave hospital: shopping, church, sightseeing, etc.

DESIGN: Provide live-in parent rooms for 20% of the total number of patients; provide fold away couches for seating during day and a bed at night; suggested 2 patients and 2 parents per room; design to allow more privacy; provide parents lounge or kitchen area for social interaction and relaxation; provide parents bath-room and dressing area; provide private storage in room; provide small meditation area for parents to be alone (this is in addition to the chapel.)

ISSUE: Hostel

PROGRAMMATIC: Provide a 24 hour consulting nursing service on the floor. Consider a sliding fee for medical services if parents are able to do many of the neccessary tasks themselves.

PARENT PARTICIPATION SUMMARY CONTINUED

DESIGN: Private hotel type arrangement with: sleeping area, bathroom, dressing area, and possibly a small cooking set up; locate away from busy ward environment; room should be comfortable and relaxed.

FOOTNOTES

[1]James Robertson, Hospitals And Children: A Parent's Eye View (New York: International Universities Press, Inc., 1962), p. 13-4.

[2]Ibid. p. 14.

[3]Adele D. Hofman, R. Becker, and Paul H. Gabriel, The Hospitalized Adolescent: A Guide To Managing The Ill And Injured Youth (New York: Free Press, 1976), p. 51.

[4]Carol B. Hardgrove, and Rosemary B. Dawson, Parents And Children In The Hospital (Boston: Little, Brown and Company, 1972), p. 19.

[5]Robertson, Hospitals And Children: A Parent's Eve View, p. 19-20.

[6]Ibid. p. 17.

[7]Hardgrove, Parents And Children In the Hospital, p. 43.

[8]Ian Simpson, "Humans And Hospitals," The Medical Journal Of Australia 1 (29 August 1969): p. 835.

[9]Hardgrove, Parents And Children In The Hospital, p. 215.

[10]Ibid. p. 229

[11]Ibid. p. 16

[12]Ibid. p. 17.

[13]Ibid. p. 8.

[14]Ibid. p. 63.

[15]Ibid. p. 74.

[16]Robertson, Hospitals And Children: A Parent's Eye View, p. 19.

[17]Barbara Snell and Connie McLellan, "Whetting Hospitalized Preschooler's Appetites," American Journal Of Nursing 76 (March 1976): p. 414.

[18]Glenn Ann Martin, Personal Correspondence, Living-In Coordinator, The Johns Hopkins Hospital, Baltimore, Maryland, July 1977.

[19]"Facility Ensures Comfort, Maintains Dignity Of Patients, Staff, And Visitors," Hospitals 50 (16 March 1976): p. 22.

FOOTNOTES CONTINUED

[20]Hofman, The Hospitalized Adolescent: A Guide To Managing The Ill And Injured Youth, p. 52.

[21]Glenn Ann Martin, Personal Correspondence, Living-In Coordinator, The Johns Hopkins Hospital, Baltimore, Maryland, July 1977.

[22]Hardgrove, Parents And Children In The Hospital, p. 236.

[23]Ibid. p. 218.

[24]Nancy E. Hilt and William E. Schmitt, Pediatric Orthopedic Nursing (St. Louis: The C.V. Mosby Company, 1975), p. 182.

STAFF CONCERNS

The morale of the hospital's personnel can be the single most important element in the creation of a positive environment for the patients. The emotional needs and concerns of the staff members, however, are all too often overlooked or ignored in the hospital system. Hospital administrations might assume that their dedicated staff can tolerate any kind of working conditions. "This fact simply is no longer true. Although, of course, there are many dedicated people, dedication alone is not what brings the person to work each morning."[1] Hospital employees, being quite human like the rest of the world, have many of the same aspirations and career goals as employees in other occupations and fields of interest. "They seek individual recognition, opportunity for promotion, a fair wage, and good working conditions, among other benefits of employment."[2] Additional considerations for a positive working situation include job security, good management, employee communication, and a state of equilibrium between what the person is trained to do and what he is expected to do. Unfortunately, however, these opportunities are not always easily obtained in the health care profession. The dangerous and detrimental result of this lack of opportunity is that the staff member who becomes unhappy or disenchanted with his working conditions might eventually take out his frustrations either

directly or indirectly on the patients, family members, visitors, or other staff members.

A hospital which examined the different types of stresses on hospital personnel listed the following four major personnel problems as the most frequently found problems in hospitals today: "(1) alcoholism and drug abuse; (2) personal, emotional, and psychiatric problems; (3) family problems; (4) high stress levels of the job."[3] As it can be seen, these four problems do not constitute a character of a superhuman being as out society would have all hospital employees be. These problems are in fact very closely related to the typical problems which might be uncovered by studies within any cross section of our contemporary society. The person who works in the hospital has the same problems as a teacher, salesman, dog catcher, or any other vocation. The only major difference which might tend to separate the hospital employee is the unusual job pressures, which provide more opportunities for emotional stress and social interaction problems.

> "Tensions raised in having to deal with the seriously ill, the profoundly handicapped, or the dying are cases in point. Also often encountered are problems dealing with the difficult family and with patients or parents who are demanding, obstructionistic, manipulative, provocative, persistently depressed, or seriously emotionally disturbed."[4]

Add to these job related problems the every day confrontations at home with family and it becomes very clear how unchecked pressures can quickly build to an unbearable level. Concern over these and similar issues have recently brought forth many questions for the health care professional to contemplate. "But what of the staff within the institution? Is there equal recognition of the fact

that staff members, too, have social, emotional, and financial problems and that these often interfere with their ability to function effectively, regularly, and efficiently?"[5] It would be ironic to call a hospital a "health care facility" if it did not seek to help the people who make it function.

It is suggested that a formal counseling service for employees who are undergoing a particularly stressful period would be beneficial for morale. This psychological counseling could be required by the request of a supervisor, but the program would work much more effectively on a voluntary basis. This staff counseling program, although greatly needed, might be quite difficult to establish because of the many negative connotations regarding psychiatry even within the health care field. One valid criticism of this program is that the institution may become satisfied with counseling the frustrated and confused staff member and in effect with treating the symptoms rather than the cause. If the same social and environmental conditions continue to exist within the facility, the morale of the staff members can be expected to deteriorate with reoccurring lapses of frustration, depression, and even hostility. It is necessary, therefore, to get to the source of the problem in order to make positive and lasting changes. As a means to this end, the health care profession as a whole should examine the traditional institutional process to uncover problems and misconceptions which may have no real significance in the contemporary hospital.

The institutional hospital is easily recognized by its highly regimented and socially structured chain of command.

The personnel hierarchy system is an element which is deeply imbedded in the foundation of the institutional system. The hospital personnel totem pole looks roughly like this: Board of Trustees, administrator, doctors, nurses, therapists, technical assistants, social services, maintenance, and housekeeping. "Hospital personnel are usually accustomed to working with a clear chain of command, where formal orders flow downward and buck-passing flows upward."[6] If a regimented and restrictive system like this is allowed to continue the personnel will eventually fall into an institutional trap of set and predetermined routines. This in turn normally inhibits all creative thought processes. "In such a system, when staff are confronted with a problem, they decide to handle it on the basis of what was done in the past. Precedent is all-powerful; innovation is suspect."[7] The most devastating consequence is the totality of separatism which is promoted among the staff members. With "the hospital's many heterogeneous groups, including the professional, semi-professional, skilled technical and service workers, it is understandable that the organization is constantly faced with the problem of resolving tension, conflict, and friction."[8]

The institutional hospital in simple terms is suffering from one large communication gap. No one is talking! Doctors do not talk to nurses, nurses do not talk to therapists, and so on throughout the system until hospital communications are reduced to writing on the patients' charts, memo pads, or order books. This breakdown in communication cannot be blamed on one individual or group since it is evident in every facet of the institutional

system. It is, however, the responsibility of the individual hospital to assure that inter-personnel communication between the various staff members can occur. This open communication will be particularly important for the modern hospital which

"now employs a greater variety of professional and technical workers, and it would seem that these individuals identify more strongly with their profession rather than with the institution. Yet the institution must have their services to survive. The basic challenge is to stress the integration of various work groups into the hospital's social system."[9]

The staff's cooperation and involvement will be especially important if the hospital is entering into a period of institutional change and development. The main drive in the organization toward a positive change will be greatly effected by the relationships that develop between the administration and the staff. Good working relationships which often lead to trust and respect are often forged together by a process of working together to overcome obstacles. The staff should, therefore, be appropriately represented on any policy or planning committee to facilitate communication and cooperation. "It is a known fact that compliance to rules is more willingly given if the rules and policies have been created or endorsed by the group subject to them."[10]

WHO IS ON THE ORTHOPEDIC STAFF?

There are many specialized positions in the hospital's personnel which are all important to the success of the facility. The following is a brief list of possible personnel departments and positions with which the planning committee should be familiar. The number of persons in each position or department will vary with the size and anticipated need of each facility.

ADMINISTRATION: The administrator is usually selected by the governing board at the hospital to be their representative to the hospital staff, clients, and the general public. The administrator is therefore a liaison person who typically represents the interest of the hospital board. The administrator is directed by the board with the responsibility of implementing policy, keeping the lid on expenditures, and directing the institution toward accomplishing the hospital's goals.

The records department is responsible for completion and filing of all required medical forms for each patient seen at the hospital. An error in the records of a patient can cause a great deal of concern regarding the thoroughness and dependability of the facility by the parents of the child. The billing department, which is another branch of the administration, is primarily responsible for sending bills to the proper authorities such as the federal government, state programs such as Crippled Children's Services, or the individual client. The billing department is additionally often responsible for accounts receivable and the payroll of the employees.

MEDICINE: The medical staff should consist of othopedic surgeons and pediatricians with additional support personnel including a neurologist, geneticist, urologist, neurosurgeon, and a general surgeon.

NURSING: The nursing staff at the orthopedic hospital will normally be divided into three major areas: acute care, rehabilitative care, and surgical care.

PSYCHOLOGY: A staff psychologist can be a very valuable resource for children, parents, and other staff members. Psychiatric consultations should be provided for any individual who is having difficulty coping with his particular situation. In addition, consideration should be given to special behavioral problems.

The special behavioral therapist is responsible for performing many social developmental and educational tasks ranging from toilet training to speech therapy. It is the primary responsibility of the special behavioral therapist to test and evaluate children to determine the nature of the training or therapy to be undertaken by each individual patient.

Additional programs within this area include developmental assessment, behavior modification programs, and coordination of the special education programs.

ORTHODISTY: The orthodist is an individual who constructs and fits artificial limbs and braces. The work done by this department is usually done in a shop where the proper tools and required machines are available. The act of fitting a brace can be a particularly traumatic experience for the child and his parents. The orthodist, therefore, should be familiar with basic counseling procedures.

PHYSICAL THERAPY: The physical therapist is responsible for the patient's development of motor skills and body dexterity. This physical activity can often be a very time consuming process which is characterized by pain, frustration, and anxiety.

OCCUPATIONAL THERAPY: The occupational therapist has traditionally been considered as the person responsible for assisting the patient's development of an employable skill; however, the therapy performed within this department in a modern hospital goes much further than this original concept. The occupational therapist usually works in conjunction with the physical therapist to develop the patient's motor skills and body coordination through special skill tasks such as hammering, sawing, writing, drawing, painting, sewing, and dancing.

RECREATIONAL THERAPY: This department is primarily responsible for providing recreational activities for the patients which are fun as well as educational and theraputic. A formal program of this nature is necessary to insure that a wide variety of activities and special events are available for the children. This department often works with the children in the evening hours and on weekends when school and other activities are not open.

CHILD LIFE DEPARTMENT: The overall objective of this department is to provide a meaningful and comfortable existance for the child during his hospitalization. The members of the Child Life Department assist medical personnel with special problems as well as with patients and parents, providing educational and recreational activities for all patients, providing the opportunity for self-expression for the child, and giving assistance and guidance to the parents during this stressful period.

EDUCATION: The staff in the hospital school usually are provided by the local school authorities. The hospital should seek to coordinate all of the activities and procedures of the hospital

school with the governing school system. The number of personnel required for this special school will depend largely on the number of patient/students seen at the particular facility. If the school is considered to be large enough, it may become necessary to have a school principal to serve in an administrative capacity.

The individual classroom teachers will need to be familiar with basic health care practices and procedures in order to provide the proper kind of care and attention for the patients while they are in the classroom. Teacher assistants or school aides are also often used if the class load becomes too large for one instructor to handle alone. The personnel in this department should possess qualities of flexibility and innovation since the program will be dealing with special children with special problems.

SOCIAL SERVICES: The social service department is present in most contemporary hospitals to provide patients and parents with emotional support and financial advice. Their involvement with the clients may range from finding transportation to counseling on financial problems and finding alternatives for financial aid. As a result of the rising cost of medical care and hospitalization the social service department through its support and advice can provide many long-ranged benefits for the family of a handicapped child.

TECHNICAL SUPPORT: This department is usually made up of the Xray and laboratory divisions in the facility. The procedures and techniques used in these areas can again be very traumatic for the patient. The cast technician, for example, is responsible for the installation and removal of all patients' casts. The removal of a cast, with the loud noise of the saw, can be very traumatic

for children. Care should be given, therefore, to make sure that all personnel are properly trained to make the child as comfortable and reassured as possible.

CLERGY: The clergy is very often overlooked when considering counseling methods for patients and parents. The religious family, however, might find a great deal of comfort and support from talking to a clergyman at a traumatic time.

MAINTENANCE AND HOUSEKEEPING: These departments are generally quite removed from any participation in a coordinated planning effort by the institutional hospital. While it is true these departments do not have a direct effect on the medical situation of the patient they may in fact play a very critical role in the hospital experience of many of the children by their mere presence on the ward.

VOLUNTEERS: As previously mentioned, a volunteer staff can significantly increase the hospital's staff and provide a positive impact on the quality of care and attention provided by the hospital.

THE NURSE'S PROBLEMS

The nurse on the pediatrics ward, as previously mentioned in the Parent Participation chapter of this thesis, is a central authority figure. Many of the problems of everyday social interaction with patients and parents, which affect the staff's attitudes and moods, have already been discussed. There are, however, some additional career oriented problems which are inherent in the institutional system itself.

The hopital hierarchy system typically places nursing below the doctors. The effects of professional categorization can be seen in many health care facilities where aides, practical nurses, technical and professional nurses work side by side performing the same tasks and functions. These tasks are done "despite the fact that many nurses obtain bachelor's, master's, and doctoral degrees; the 'bedpan image' still influences the public's attitude."[11] As was previously stated, one of the primary objectives of any employee is to have the possibility of promotion within an organization. In the nursing profession, however, due to the strict institutional classification system and public misconceptions, opportunities for promotion within the hospital are virtually non-existant. It is often an additional insult that the nurses' pay structure does not always reflect their education or experience. "Seldom are distinctions made between either the functions or the monetary rewards granted the highly trained in comparison to those with less education. All this, of course, affects the quality of care provided the public."[12]

Sexism has also greatly hampered the nursing profession throughout its history. "Nursing, perhaps more than any other profession, has been influenced by social conceptions regarding the nature of women. Modern nursing originated at a time when Victorian ideas dictated that the role of women was to serve men's needs and convenience."[13] As a result, although the nurse may have received excellent training, she still performs all of her tasks under the orders of the physician in charge.

These procedures are beginning to change in the health care field with the development of the medical team concept. The nurse plays an important role in the care of the patient as a member of this team which may consist of doctors, therapists, and counselors. The team meets on a regular basis to discuss individual cases and to determine the best possible course of action. In this way the team works together with a common purpose: the well-being and benefit of the child. This goal is the focal point which provides a good reason for developing communication channels and working relationships between all of those involved with the care of the child (see Figure 22). Another relatively new attitude change is that of the hospital administration's concept toward the female worker. "Prior to this change, the female worker was looked upon as a 'secondary breadwinner' and thus could subsist on less pay than that provided a male worker."[14]

There are also recent trends in many facilities to encourage individuality of staff members. This can be seen in the restructuring of outdated dress codes and standards to permit nurses to wear their own daytime clothes rather than the traditional white or pastel uniform. "Some nurses feel that they are less frightening to small children when not wearing a uniform, often a symbol of hurting or of authority, and that the child sees them as individuals more easily when they are individually dressed."[15] Most important, however, is the fact that the employee can see herself as an individual rather than a cog in the institutional wheel.

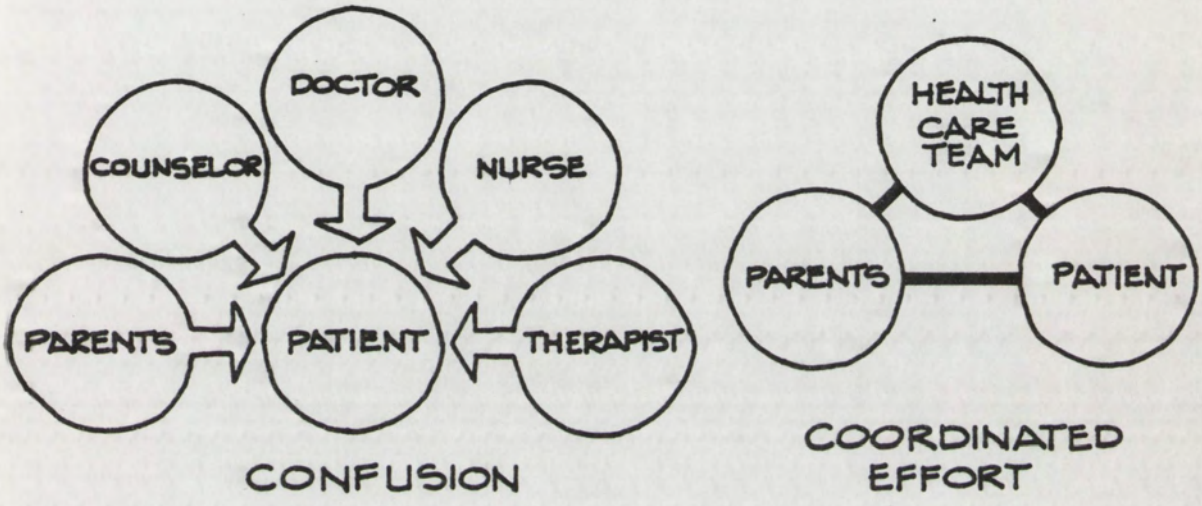


Figure 22

The Health Care Team Can Alleviate Confusion and Provide a Coordinated Effort for the Good of the Patient

IT TAKES A SPECIAL STAFF AWARENESS

The person who works in an orthopedic hospital should posses many special qualities important to the success and effectiveness of the facility.

> "There is a special quality that all personnel must be willing and able to convey to these special children. That quality is the capacity to give tender, loving care without expecting anything in return. Many of these children are the source of ridicule in the community, in their schools, and sometimes even in their homes. They must know that someone cares!"[16]

This will take a great deal of time and effort on the part of the hospital personnel. It typically means many frustrating hours with a child attempting to walk for the first time or with a non-responsive parent who is having difficulty in coping with the child's permanent handicap. Fortunately, the basic motivation for health care work often comes from the quality of relationships developed between the staff and the patients. It would be very difficult to maintain a full staff at an orthopedic hospital with qualified personnel if this were not true.

It is also important for staff members to strive for perfection yet be able to accept their own human failures. The staff quite normally will react to the personalities of the patients and parents and to the stress of difficult situations. For example, if the patient's reactions to therapy are negative, the staff's reactions may also become negative. This is a natural occurrence on almost all hospital wards and should be anticipated in order to properly deal with the problems.

The way in which each individual staff member responds to the patient can have a definite effect on how the child reacts

to his stay in the hospital. It is important, therefore, to familiarize all hospital personnel with fundamental methods of talking to and assisting the children in everyday ward interactions. Staff members should always introduce themselves the first time they come in contact with a new patient so that the child will identify with them as people and not just a uniform or face in the crowd. This type of social development is particularly important for the child in the rehabilitation center since he may be confined for a long period of time away from normal social interactions.

It is very important to include staff members from all disciplines in order to provide a consistent effect on the hospitalized child. Some hospitals that provide staff seminars and workshops tend to train and retrain the same individuals and ignore many important staff resources. For example, although a hospital maintenance person does not have any direct responsibility to the health care of the child, it is quite possible that this non-medical staff member will have more actual contact with the patient than a therapist, social worker, or even the doctor. In addition, children will often respond to non-medical personnel better since there is no fear that the person will hurt them in any way.

Communication between all staff members on the ward is necessary to provide a constructive experience for the child. Pertinent medical information should be given to all the ward personnel, providing a coordinated effort. For example, there are many special considerations to be given to a child who has been admitted with a traumatic injury. The circumstances of the trauma should be known by the staff to prevent harmful questions and

discussions of an emotionally devastating subject matter to occur in the child's presence. If the hospital gathers patient information from admission questionnaires as previously suggested, this information should be available to the staff. It will not do any good, and may prove to be quite confusing to the young patient, if the morning nurse lets him feed himself and the night nurse insists on feeding him. Information about the parents' visits should also be available. If the night nurse tells the patient that his parents will be back in the morning but the morning nurse does not know anything about it, this can cause the child many moments of needless worrying and concern.

SPACES FOR THE STAFF

"An important contribution to an employee's physical and mental work space is the design of interior space. The proper use of interior space design, furnishings, and graphics can increase employee productivity and performance and can generate an employee's positive attitude about his environment."[17] Unfortunately, the typical institutional environment does little if anything to take advantage of these positive environmental effects. Only a few of the questionnaire respondents, for example, indicated that there were any special features such as graphics or decorations which might be stimulating to the observer. Fortunately, it is fairly safe for the planning committee to assume that what is good for the patients will also be beneficial for the overall working environment of the facility. Employees, like the patients, enjoy visual stimulation, fresh air, natural light, sound control, and a variety of spaces (see Figure 23).

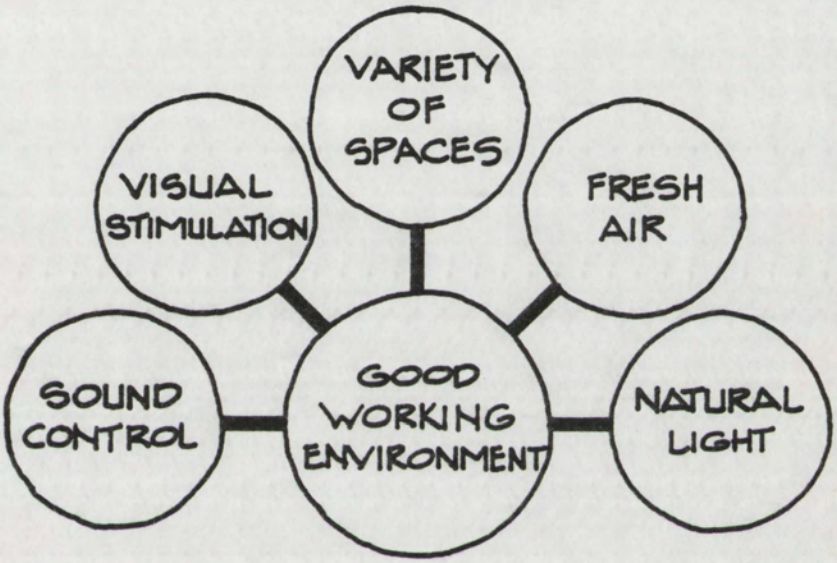


Figure 23

Requirements for a Good Working Environment

Perhaps the most important design consideration is to provide the staff the opportunity to get away from the pressures of the ward. The presence of teachers' lounges in our schools have long been noted for their emotional recuperative value. The staff should be involved in the development of policies regarding coffee breaks and rest periods. This will probably provide a greater degree of cooperation among the employees. In addition, "The hospital will do well to provide the locker rooms, toilets, and lounges which modern personnel practices call for and space so used will pay dividends in employee attitudes."[18] These staff spaces, therefore, should be considered as requisit rather than optional.

SAFETY FOR THE STAFF

Due to the many hazardous materials and procedures present in a medical facility, the hospital could become a rather dangerous place to work. Hospital studies have identified the following four major hazardous conditions which are frequently present in many facilities: "(i) physical - for example, accident, fire, and radiation; (ii) chemical - for example, laboratory and toxic materials; (iii) biological - for example, cross infection and pests; (iv) psychological - for example, mental and social stress."[19] While it is important to give primary emphasis to the patient, the hospital must not ignore its responsibility to provide a functionally efficient and safe environment for its employees. "The present situation in many large hospitals may illustrate the old Scottish saying that 'the shoemaker's bairns are aye the worst shod."[20]

A good place for the planning committee to start is to study the Life Safety Codes which provide guidelines for designing a relatively safe environment. This information may be very complicated and confusing to the typical committee member. (It is suggested that the facilitator may want to consider using the simplified outline provided in the Appendix as a means of presenting this information.) The hospital committee may also find that it would be advantageous to provide an ongoing safety education program for all of its employees. Safety can become a state of mind. If an accident does occur, however, provisions for emergency first aid treatment should be available for the staff, followed by a referral to the individual's doctor.

STAFF CONCERNS SUMMARY

ISSUE: Working Conditions

PROGRAMMATIC: Give recognition for outstanding service. Define job responsibilities by experience and education to make the best use of personnel. Provide a fair wage. Consider a counseling program for employees. Develop a hospital policy regarding sexism (especially for women employees who are no longer considered to be secondary bread winners.) Encourage individualism through permitting the wearing of one's own clothes rather than the traditional uniform. Involve the staff in self-governing to make their own policy decisions.

ISSUE: Social Hierarchy System

PROGRAMMATIC: Consider ways to break rigid "class" divisions. Encourage the attitude that each employee is important for the success of the program. Consider communication channels and how they function. Consider the team concept with inter-departmental committees.

COMMENT: The general attitudes and enthusiasm of the hospital staff can be the single most important factor in the success of the facility.

ISSUE: Working Environment

PROGRAMMATIC: Allow staff to develop policy regarding the use of staff lounge. Encourage staff participation in the planning of their space. Provide an ongoing safety awareness program. Provide for emergency care for on-the-job injuries.

STAFF CONCERNS SUMMARY CONTINUED

DESIGN: The whole hospital should be considered a working environment and be rich and varied, comfortable, and visually stimulating; provide a staff lounge to get away from the busy ward with personal storage, toilets, dining area, etc.; design should reflect major safety considerations: physical, chemical, biological, and psychological.

FOOTNOTES

[1]John M. Boyer, Carl L. Westerhaus, and John H. Coggeshall, Employee Relations And Collective Bargaining In Health Care Facilities (St. Louis: The C. V. Mosby Company, 1975), p. 3.

[2]Ibid. p. 115.

[3]Evelyn M. McNamara, "The Caring Employer Helps The Troubled Employee," Hospitals 50 (16 October 1976): p. 93.

[4]Adele D. Hofman, R. Becker, and Paul H. Gabriel, The Hospitalized Adolescent: A Guide To Managing The Ill And Injured Youth (New York: Free Press, 1976), p. 77.

[5]McNamara, "The Caring Employer Helps The Troubled Employee," p. 93.

[6]Milton Greenblatt, Myron R. Sharaf, and Evelyn M. Stone, Dynamics Of Institutional Change: The Hospital In Transition (Pittsburgh: University Of Pittsburgh Press, 1971), p. 9.

[7]Ibid.

[8]Boyer, Employee Relations And Collective Bargaining In Health Care Facilities, p. 29.

[9]Ibid. p. 31.

[10]Ibid. p. 15.

[11]JoAnn Ashley, Hospitals, Paternalism, And The Role Of The Nurse (New York: Teachers College Press, 1976), p. 73.

[12]Ibid.

[13]Ibid. p. 75.

[14]Boyer, Employeee Relations And Collective Bargaining In Health Care Facilities, p. 4.

[15]Carol B. Hardgrove, and Rosemary B. Dawson, Parents And Children In The Hospital (Boston: Little, Brown And Company, 1972), p. 233.

[16]Nancy E. Hilt, and William E. Schmitt, Pediatric Orthopedic Nursing (St. Louis: The C.V. Mosby Company, 1975), p. 10.

[17]Edward J. Bertz, Richard diMonda, and Joseph G. Sprague, "Viewing The Hospital As A Working Environment," Hospitals (16 October 1976): p. 188.

FOOTNOTES CONTINUED

[18]Edward T. Wheeler, Hospital Design And Function (New York: McGraw-Hill Book Company, 1964), p. 210.

[19]A. Douglas, "A Hospital Health Unit," The Medical Journal Of Australia 1 (8 May 1976): p. 702.

[20]Ibid. p. 703.

THE HOSPITAL AND ITS COMMUNITY

Hospitals are often considered to be separate and isolated entities in our society (see Figure 24). This isolation is due primarily to the time-worn concept of institutional management that refuses to allow any outside interference to enter into the functioning of the system. "Hospitals have not yet discovered how to give their constituents a voice in management, and there is an uncomfortable feeling that to do so may result in severe constraints on administration."[1] The ironic misconception in this isolation theory is that the community is already playing a major role in the hospital world. For example, "Whether it is a rural area 70 miles from the nearest city or in a metropolitan setting with a population of three million, a hospital depends upon the surrounding community to supply a major portion of its health manpower."[2] In addition, it is important to remember that almost all health facilities, with the exception of a few research hospitals, are constructed to meet the health needs of the community in which they are located. If the community is not involved in the functioning of the hospital, therefore, there is no real need for the hospital in the first place. The hospital's failure to recognize this fact can be quite detrimental to the success of the facility. There are very few if any communities which would not desire to have some input into the planning of a hospital in

Figure 24

The Hospital Cannot Function as an Island in the Community

their neighborhood. If the institution chooses to openly ignore the desires of the community, the facility can expect to encounter various degrees of suspicion, resentment, and general public paranoia.

> "Obviously, confrontations and demands, which may be one and the same thing, will continue as hospital plans meet community concerns head-on unless those plans have been formulated whether in concert with or at least after consultation with community leaders; and thus such plans reflect an awareness of the fears and concerns of their constituents."[3]

Many hospitals which have neglected the concerns of the community have become, "so depersonalized and mechanized that many patients and relatives feel that the institution exists for the sake of routines, the procedures, the administration and the staff rather than for the sake of the sick."[4] This non-verbal message is a direct contradiction of what should be the primary objectives of the facility: to provide quality health services to the patients. If the hospital is uninformed about the community's social and cultural concerns it can inadvertantly make social and psychological blunders which will very dramatically turn away a fundamentally important resource: the public. The modern hospital cannot afford the institutional luxury of existence without its community. The hospital today is becoming more and more dependent on the community for its financial support, its services, and its management. It is important, therefore, that the hospital become a part of the overall social system in the community and to actively encourage the public's participation.

It is commonly felt by many health care professionals that, "We have lagged in relating the hospital environment to the needs

of the family and neighborhood in which the hospitals are located, thus discouraging active participation by children, parents, and community neighbors and friends in facilitating the care of the hospitalized child."[5] Only seven of the questionnaire respondents, for example, indicated that they had an ongoing program to encourage the community to participate more actively in the hospital's programs. There is a present trend in the health care field, however, which would indicate that there is some progress in the hospitals' outreach programs. There are very few hospitals that only treat the patients within their walls. The modern hospital typically provides out-patient departments, social services, research programs, satellite clinics and in many cases links with a medical school. The number and kinds of community outreach services offered by the facility will depend greatly on how the hospital perceives the surrounding community. The hospital's approach and attitude will also influence how the patients and community make use of the services. It can be safely assumed, therefore, that no matter what the facility's goals and plans are, they can either be weakened or enhanced depending greatly on the institution's relations with the community.

Favorable and positive change in the hospital will be dependent on the fusion of the two worlds - the one inside the hospital and the one outside. "The most difficult task in public relations, either external or internal, is dealing with silent, hopeless apathy."[6] Apathy, unfortunately, is an institutional fact of life and is a problem which will have to be confronted in almost every level of the system. The process of institutional change is often

a long and frustrating procedure. If, however, "the partnership between the hospital and its community continues to be stressed as a necessity rather than a luxury, then the challenge to make the partnership work seems to be the hospital's responsibility."[7] The planning committee will play a very vital role in the facilitation of this partnership both within the hospital and out in the community. Patience, perserverance, and uncompensating energy will surely be necessary requirements in this process. The planning committee's first step should be to gain a better understanding of the concerns of the target community in order to lay a firm foundation from which good communication and cooperation will hopefully be derived.

COMMUNITY CONCERNS

Studies which evaluate community concerns have found three major problems: physical, economical, and social deterioration (see Figure 25). Physical deterioration would include such things as unsightly parking lots, the addition of access streets which in turn introduce more traffic and congestion, the scale and size of the structure which will conflict with existing architectural styles, and the disruption of traditional pedestrian and bicycle paths. Economic deterioration is often related to the introduction of additional support elements which accompany a hospital. Hospitals have traditionally been surrounded by drugstores, card shops, medical supply outlets, flower and gift shops, and housing for new employees. All of these items can become threats to the cultural and social balance of the existing community. Social deterioration also has to do with the introduction of individuals

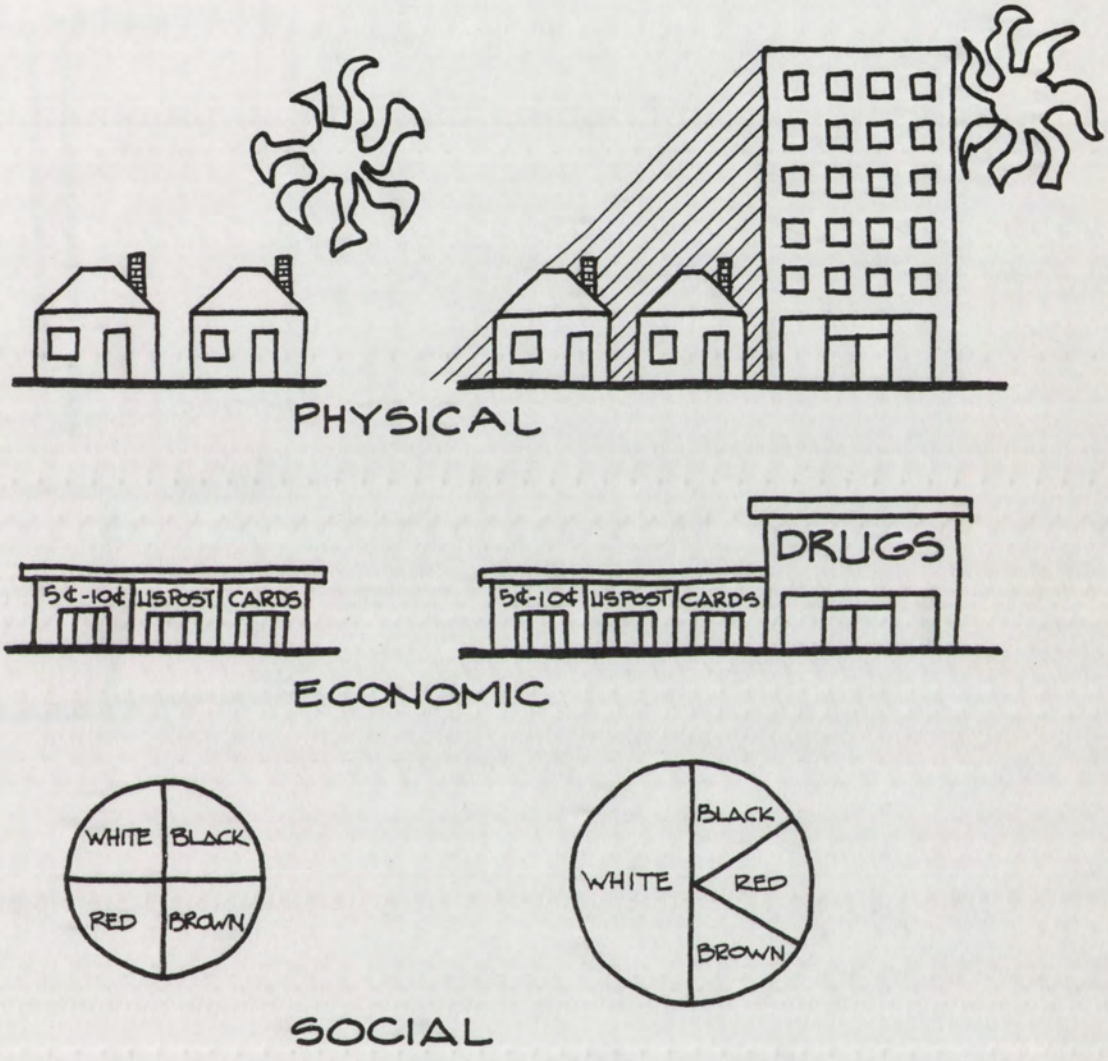


Figure 25

The Community's Fears

of differing economic, cultural, and educational backgrounds into the area. The hospital in this country has traditionally been considered to be the domain of the white, middle class individual. The introduction of such a facility into an economically depressed or culturally oriented community can provide a catalyst for many serious and long lasting social confrontations. It is suggested, therefore, that "Healthy solutions to problems in health care require that the public become more accurately and fully informed about its health and hospital system to eliminate the mystery, myths, and confusion that surround the delivery of care."[8] In simple terms, it is important for the hospital to ask, not tell.

A good and readily available way to facilitate community involvement is for the planning committee to include representatives from the community in all phases of the design of the hospital. Hospital studies have shown that, "The development of a sound community hospital is impossible without a strong relationship between the hospital board and the leaders of the community."[9] The community representatives, therefore, should be full voting and participating members of the planning committee. The representatives should be responsible for conveying planning information to the community at large. In addition, the community representative should be able to adequately express the community's viewpoint to the rest of the committee to insure that all solutions will be appropriate for the community. The primary challenge for these individuals is to establish a strong communication system between the hospital and its community.

The planning committee should also consider several basic community involvement programs. The personnel in the hospital, for example, should reflect as closely as possible the ethnic and economic mix of the community. The hiring of minority staff persons can go a long way in making the non-verbal statement that the hospital wants to work with the community, not around it. The incorporation of a community volunteer program can also serve to break down social barriers within the hospital. This program would provide a person or persons who are familiar with medical techniques and procedures, but not necessarily professionals, to assist hospital patients and their families through the medical maze. The volunteer should be someone from the community itself and be able to speak the language of the area.

The planning committee should also consider a full time public relations officer for the hospital. It would be the responsibility of this person to seek out and coordinate community resources beneficial for the hospital program. This task can often become quite tedious and time consuming but has been found by some hospitals to be a very worthwhile venture. One of the most readily available resources in the community is the people themselves.

Many hospitals are finding that volunteer programs which encourage the participation of community groups is a great boost to their programs. One hospital study concluded that, "It is our conviction that volunteers represent the latent resource which, uncovered and fully appropriately utilized, can make the difference between a marginal existance and an acceptable life for the hospitalized."[10] Hospitals for many years have had auxiliaries

such as Pink Ladies and Candy Stripers. Hospitals are now using the knowledge gained from these programs to encourage the participation of a wider range of volunteer services such as church groups, community centers, high school groups, and civic organizations. With this additional volunteer manpower, the facilities are able to develop some very exciting programs and services which make for a better experience for children. These new programs include: day care groups who take care of siblings who visit the facility, after school programs which encourage group participation of handicapped and non-handicapped children, summer and part time job opportunities for high school students as an introduction to the health care field, a parent's advisory council which provides non-professional counseling between parents with similar concerns, and publication committees which produce newsletters which are sent to clinic patients and their families.

If the hospital is located near or has a working relationship with a medical school or university, many opportunities for student involvement arise. Most college and universities boast a large number of social organizations such as honor societies, fraternities and sororities, dormitory councils, and various departmental student associations which would be interested in establishing ties with a hospital program. The Department of Pediatrics at Upstate Medical Center in Syracuse, New York, for example, frequently incorporates different programs and projects for students from the nearby University of Syracuse.

"The agencies were very willing to have students take part, and were enthusiastic about the idea that the students should initiate new approaches that would complement the services the community already offered. The idea was that students would relate to the children on a person-to-person basis by establishing close friendships that are not always possible in a busy community hospital."[11]

In addition to this overall approach, students were also actively involved in specific projects within the hospital to improve the environment and its functioning. "Engineering students designed and built theraputic and recreational toys and equipment, suited to each child, at the cerebral palsy and handicapped children's center. This special equipment is not usually available commercially."[12]

It is often difficult to understand why more facilities do not encourage and facilitate community interaction. While it is often said that two parties should meet half way, the hospital should remember that since it is the newcomer, it will have to make the inital strides in this partnership. The planning committee should, therefore, seek out support and suggestions from various community groups during the preliminary planning phases of the project. The following is a list of organizations which might be found in the proposed community which are often receptive to participation in hospital projects.

Boy Scouts
Girl Scouts
Campfire Girls
YMCA and YWCA
Boy's Club
U.S.O.
Jewish Community Council
Salvation Army
Family Counseling Service
Big Brothers
Police Athletic League
American Cancer Society
Knights of Columbus
Elks and Does
Lions Club
Optimists Club
Junior Chamber of Commerce
Civitans
P.T.A. Groups
National Honor Society
Bands and Orchestras
Lettermen Clubs
Glee Glubs and Choirs
International Organization of Foresters
National Humane Society

Easter Seal Society	Arts and Crafts Stores
Goodwill Industries	Pet Stores
Alcoholics Anonymous	4H Clubs
United Way	Future Farmers of America
Shriners	Zoos

THE PHYSICAL IMAGE

The physical image which the hospital portrays can have a very significant effect on the acceptance of the hospital in the community. The following is a description of the first look at a medical facility as described by Ms. Joni Eareckson:

"As we approached Green Oaks, I became even more excited - Green Oaks. Even the name had a pleasant ring to it. In may mind I pictured a big, colonial structure with tall, white pillars overlooking sweeping lawns shaded by huge green oak trees. When we pulled into the driveway, however, I could see that it looked nothing like this. It was a sprawling, low brick building, more like an industrial park, office complex, or factory."[13]

Unfortunately, this type of institutional facade is very common in large hospital facilities. As a result, the element of largeness often connotes institutionalism in the eye of the public. While it may not always be feasible for a large hospital to architecturally fit into the same scale of the surrounding community, the design of the facility should still attempt to non-verbally state that this is the community's hospital.

"In recent years, too many hospitals have communicated only the idea of their preoccupation with technology and the importance of their highly trained staff. Too few have communicated the true nature of the hospital as a public servant and provider of a psychologically nuturing environment. It will be in attempting to provide this latter image that architects will ultimately be able to make their greatest contribution to the health delivery service."[14]

The design of the hospital should be a reflection of the community where it is constructed. As a result, each facility should be uniquely designed to fit a special place. For example,

a facility located in the Southwest should not look like a hospital designed for downtown Cleveland, Ohio. Building materials, climatic conditions, economic considerations, and most importantly the people are all different. Perhaps the best way to evaluate methods of community and hospital interface is to examine what has been done already.

There are several good examples of hospitals which have chosen the concept of community interface as a basis for their design. The planning committee at the Norton-Children's Hospital in Louisville, Kentucky, decided that it was important to strive for a more open and positive image to counterbalance the traditional negative "illness center" image. This concept was evident in the final design of the facility which "physically merges the community and hospital by visually indicating their association through public spaces and circulation spines designed to maintain an outside orientation."[15] The hospital visitor is constantly visually reminded where the hospital is located as he moves through the facility as a result of this indoor/oudoor relationship. The Lake Forest Hospital which is located near Chicago, chose a somewhat different approach. The facility is located in a suburb of Chicago which was noted for its many large estates, expensive homes, and beautifully wooded yards. "The hospital facilities have been designed as small buildings in the Williamsburg Colonial Style or in contemporary style with colonial influence, and landscaping has been used to blend the buildings with their site."[16] A substantial portion of the construction budget in this case was designated for landscaping and preservation of existing trees

and vegetation. The hospital continues to provide a full-time ground keeping crew which is often aided by local gardening clubs from the community. A most unique approach was introduced at the Sunnybrook Medical Center in Toronto, Canada. The hospital's main objective was to keep the patients interested in the surrounding environment and to involve relatives, friends, and the community. "One of the means listed to meet these objectives was the inclusion of an extensive collection of Canadian art and artifacts, which enhances the numerous patient activity areas in the wing. Under government funding for the wing, a certain percentage of the construction cost is allocated for the purchase of art."[17] The objects which the hospital now has on display include such items as a Dominion Coat of Arms, military artifacts, airplane propellers, a photo mural of Ontario's Civic Center, Eskimo sculptures and tapestries, a pre-historic musk-ox head, a barber's pole, a model T Ford, aquariums, model sailing ships, autographed hockey sticks, and travel posters. The community is encouraged to come to the hospital to view this collection much like an art gallery or a museum. School groups, civic organizations, and tourists are often seen touring the facility to see the collection.

These examples are just a few suggestions of what can be done. It is important to remember, however, that each hospital should be unique. The community's involvement in the hospital planning is a sure way to provide an appropriate physical message which will link the internal and external worlds of the facility.

COMMUNITY INVOLVEMENT SUMMARY

ISSUE: How to Encourage Community Involvement

PROGRAMMATIC: The hospital should take the responsibility for making the partnership work and have the energy to overcome internal and external apathy. Consider Public Relations officer to coordinate effort and set up special events schedule. Consider community representatives on the planning committee to serve as liaisons to the public. Develop list of organizations that may consider involvement: review list provided in text, consult local Chamber of Commerce, read through the yellow pages. Encourage and facilitate volunteer programs.

COMMENT: The general public must be involved in the planning to encourage an optimal rapport.

ISSUE: Community Fears: Physical

PROGRAMMATIC: Determine what the physical "image" of the facility should be.

DESIGN: The design should reflect the existing architectural style of the community; avoid the use of prohibitive signs of negative non-verbal messages; consider examples in text.

ISSUE: Community Fears: Economic and Social

PROGRAMMATIC: Hospital personnel should reflect the ethnic mix of the community.

FOOTNOTES

[1]John D. Thompson and Grace Goldin, The Hospital: A Social And Architectural History (New Haven: Yale University Press, 1975), p. 270.

[2]Barbara I. Bloom, "The Hospital And The Community - An Interdependent Relationship," Hospitals 50 (16 October 1976): p. 81.

[3]Max Q. Elder, "Perceive, Relate To The Public," Hospitals 50 (1 April 1976): p. 110.

[4]Ian Simpson, "Humans And Hospitals," The Medical Journal Of Australia 1 (26 April 1969): p. 838.

[5]Evelyn K. Oremland and Jerome D. Oremland, Effects Of Hospitalization On Children: Models For Their Care (Springfield, Ill.: Charles C. Thomas Publisher, 1973), p. 9.

[6]Milton Greenblatt, Myron R. Sharaf, and Evelyn M. Stone, Dynamics Of Institutional Change: The Hospital In Transition (Pittsburgh: University of Pittsburgh Press, 1971), p. 39.

[7]Elder, "Perceive, Relate To The Public," p. 110.

[8]JoAnn Ashley, Hospitals, Paternalism And The Role Of The Nurse (New York: Teachers College Press, 1976), p. 134.

[9]Ivan Belknap and John G. Steinle, The Community And Its Hospitals (Syracuse: Syracuse University Press, 1963), p. xviii.

[10]Greenblatt, Dynamics Of Institutional Change: The Hospital In Transition, p. 129.

[11]Andrew D. Weinberg and Richard L. Neu, "Care Of The Pre-School Handicapped," Lancet 2 (27 December 1975): p. 1303.

[12]Ibid.

[13]Joni Eareckson with Joe Musser, Joni (Minneapolis: World Wide Publications, 1976), p. 58.

[14]Michael Bobrow, "The Evolving Health Care System: A Framework For Design," Architectural Record 158 (September 1975): p. 124.

[15]Wade Mountz and James Falick, "New Facility Emphasizes Efficient Care, Positive Image," Hospitals 50 (16 February 1976): p. 60.

FOOTNOTES CONTINUED

[16]"Ongoing Landscaping Program Enhances Hospitals' Community, Patient Relations," Hospitals 50 (16 June 1976): p. 35.

[17]"Art For The Patient's Sake Enhances Long-Term Care Facility," Hospitals 49 (16 October 1975): p. 33.

WHAT NOW?

Humanistic planning, as shown in the text of this thesis, is an involved and tedious process. The reader should note that to evaluate all of the various user needs is a difficult and time consuming job. Fortunately this task can be greatly aided if the users are involved in the process. The users bring to the planning committee a special awareness and sensitivity of their particular expertise. This information can be shared through open communication. This communication serves as a catalist for the development of new and progressive attitudes within the hospital. This is all accomplished with the fundamental understanding that the patients are the single most important planning consideration. Finally, the success of the committee's efforts will be seen in the faces of the children.

Those who are interested in pursuing humanistic planning may find the following project flow chart helpful in implementing their ideas (see Figure 26). This chart demonstrates the required steps for the planning process. The page numbers located at the bottom of various captions refer to additional information provided in the text. In addition, the final steps are divided into schemes A and B. Scheme A reflects the typical process where the work to be accomplished is bid out and construction is implemented by a contractor. Scheme B refers to a self-help project where materials and/or labor are donated.

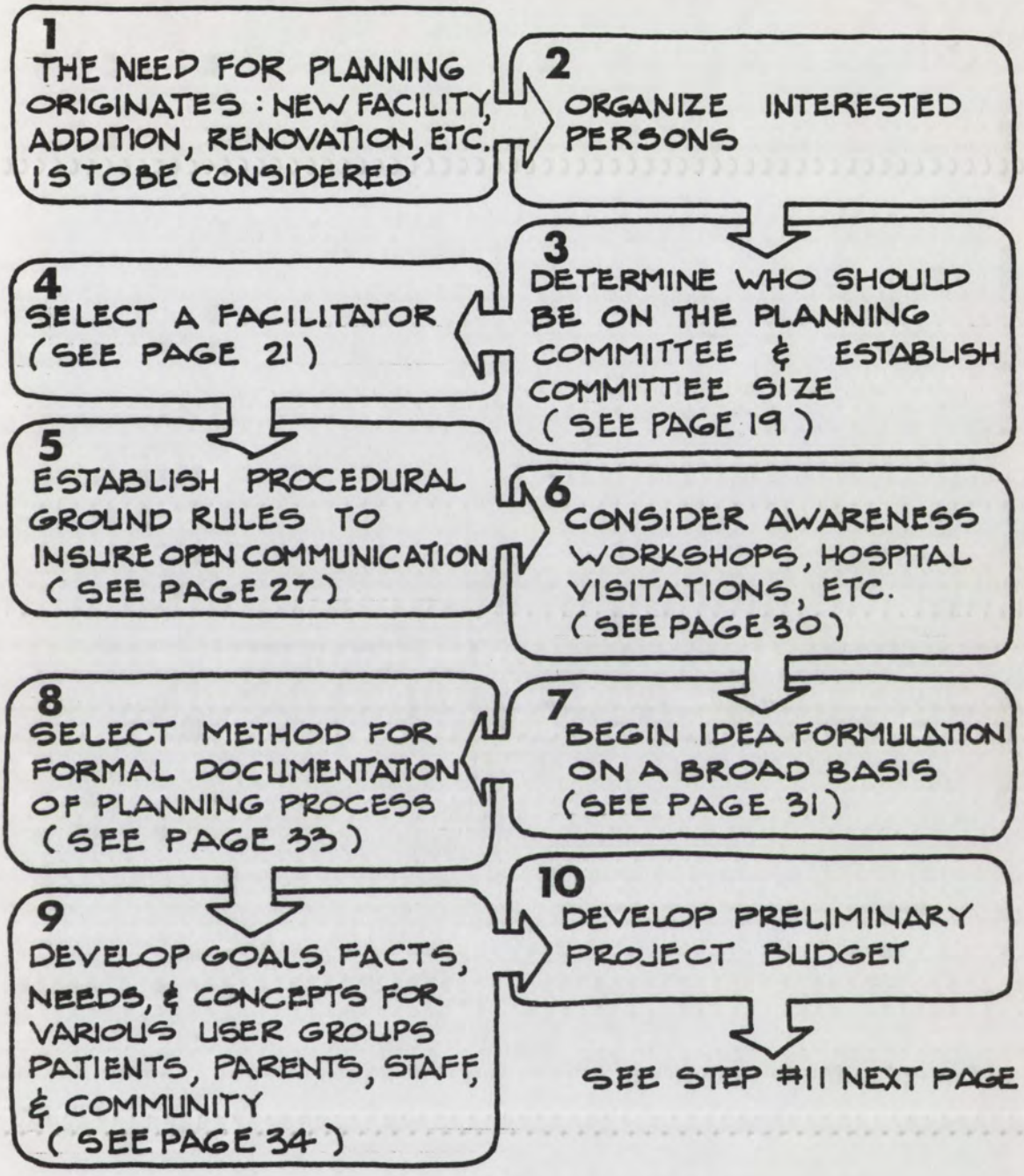


Figure 26

Project Flow Chart

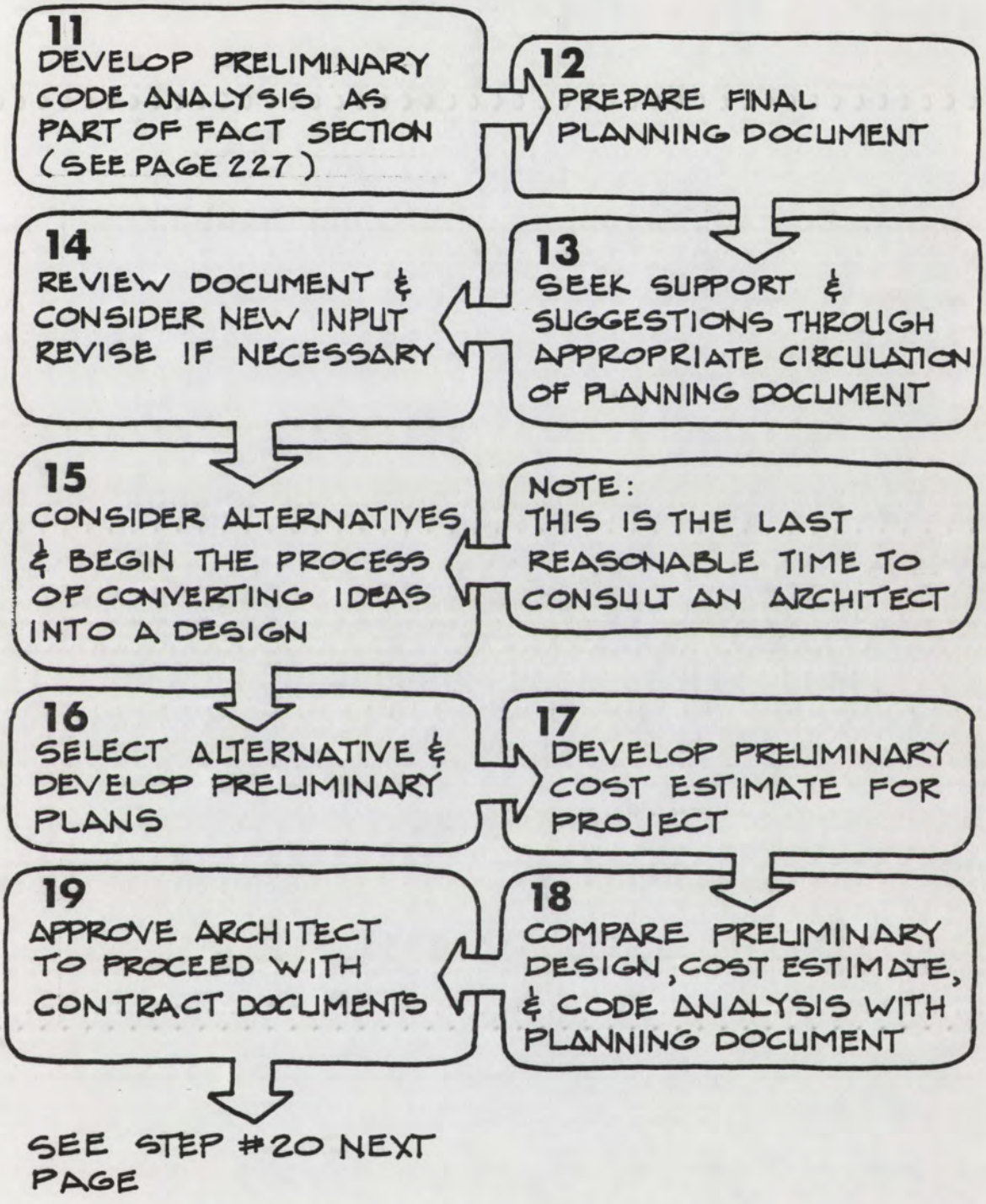


Figure 26

Project Flow Chart Continued

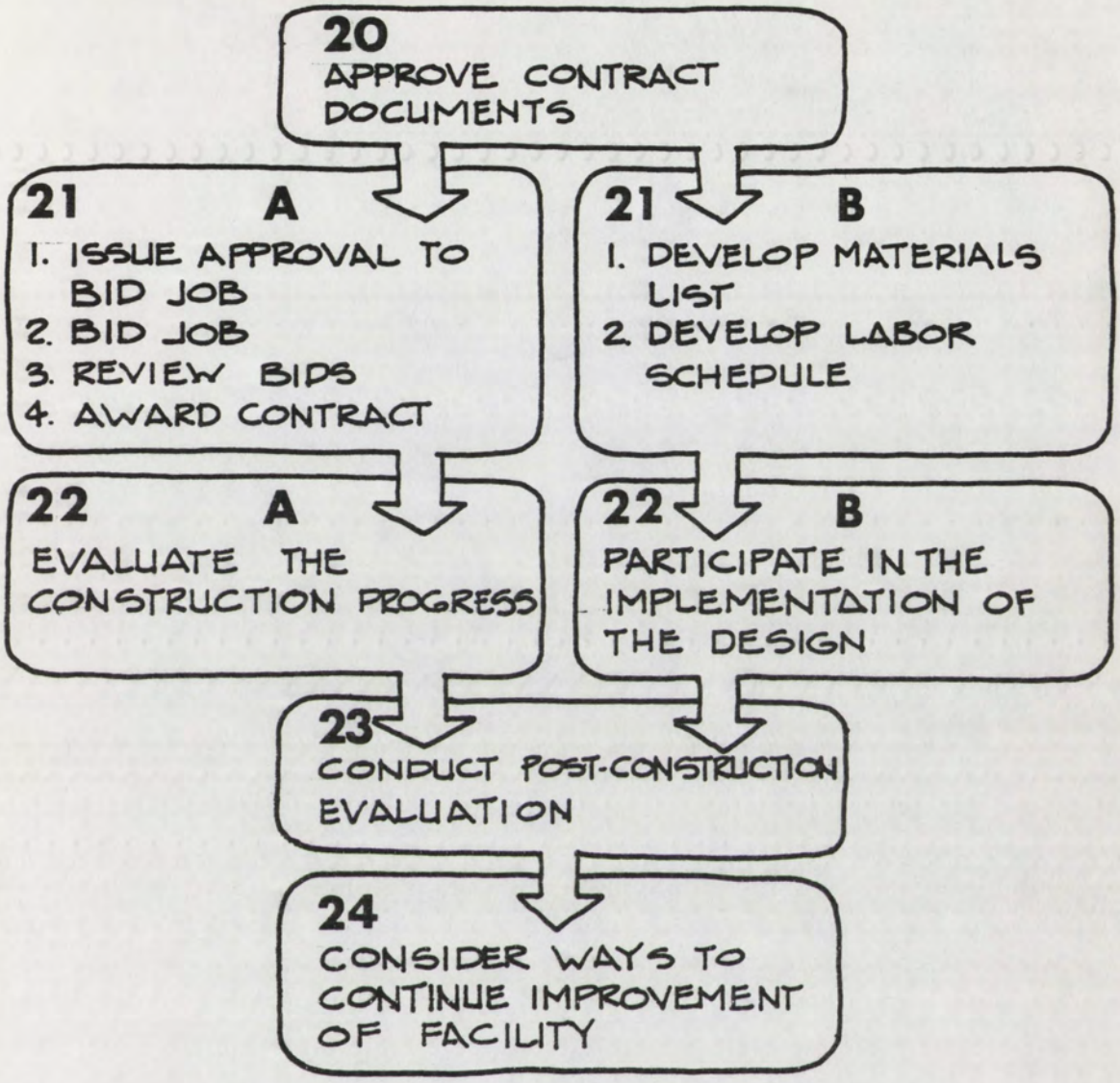


Figure 26

Project Flow Chart Continued

APPENDIX

CHILDREN'S ORTHOPEDIC HOSPITAL

QUESTIONNAIRE REVIEW

A logical first step in any planning process is to evaluate what already exists. The Children's Orthopedic Hospital Questionnaire was, therefore, developed to gather factual and first-hand information about existing hospitals. The information acquired was to be used as both comparative and supportive materials for the forthcoming thesis. The major objectives of this questionnaire were:

1. to gather general information about the facility,
2. to ascertain specific programmatic information about the types of services which the hospital provides,
3. to determine what types of physical spaces are required to facilitate the programs, and
4. to solicit suggestions and advice on how to plan and design a similar facility.

The questionnaires were distributed to twenty-five facilities throughout the United States; these facilities are all designated by the American Medical Association as Children's Orthopedic Hospitals. A total of fourteen questionnaires were completed and returned with a 56% response rate. The following is a list of responding hospitals:

Shriners Hospital, Los Angeles, California
Alfred I. Dupont Institute, Wilmington, Delaware
Shriners Hospital, Chicago, Illinois
Shriners Hospital, Lexington, Kentucky
Shriners Hospital, Shreveport, Louisiana
Children's Hospital, Baltimore, Maryland
Shriners Hospital, St. Louis, Missouri
Carrie Tingley Hospital, Truth or Consequences, N. Mex.
Shriners Hospital, Portland, Oregon
Shriners Hospital, Philadelphia, Pennsylvania
Shriners Hospital, Greenville, South Carolina
Shriners Hospital, Houston, Texas
Crippled Children's Hospital, Richmond, Virginia
Shriners Hospital, Spokane, Washington

QUESTIONNAIRE REVIEW

1. When was the hospital originally constructed?

The dates of original construction ranged from the year 1909 to 1963. The average age of the responding facilities was 43 years old. The largest concentration of construction was during a seven year period between 1922 and 1928 when six of the hospitals were built.

2. Was the facility originally intended to be a children's orthopedic hospital?

YES 12 NO 2

The two negative responses both stated that the original intent of the hopital was to provide acute care and rebabilitation for polio victims.

3. Please indicate how the hospital has grown or changed by listing dates and reasons for major renovations, alterations, and/or additions.

As could be expected, there was a wide range of additions and expansions to all of the facilities. The following is a list of typical responses in the order of their greatest reoccurrence:

Operating Room Suite (addition made to six facilities)
Auditoriums (five facilities)
Out-Patient Clinics (four facilities)
Classrooms (three facilities)

4. Does the hospital have a committee which is involved with planning physical changes in the building?

YES 13 NO 1

The 13 affirmative responses all indicated that the physical planning was accomplished at the administrative level (i.e. Board of Governors). Only two of the hospitals indicated that there was any staff participation at all in the planning process.

Seven of the hospital planning committees meet monthly, one meets every six months, one meets once a year, and three meet "only if necessary".

5. What are the types of patient rooms and how many of each are available? (single, double, ward, etc.)

The responses indicate that the typical patient space is located in a ward ranging in size from five to thirty-six beds. Most of the hospitals also have a few single rooms which are either used for trauma or isolation cases.

6. How are patients assigned to rooms? (age, sex, handicap, other)

Ten hospitals segregate their patients by age and sex while three more segregate by sex only. One facility assigns patients to rooms on the basis of age, sex, handicap, smoking or non-smoking, type of surgery, and closeness to the nurses station.

7. Are patients allowed to change their rooms to make them more individualized?

YES 5 NO 8

The intent of this question was to determine if the patient could make physical alterations to his or her environment to make it more personalized. The use of the word "change" was a poor selection and proved to be confusing to the respondents. "Change" was interpreted by four of the respondents to mean, "to move from one room to another". It was decided that these answers would be accepted as positive responses since it was thought that a change of rooms could in fact make the patient feel more comfortable and therefore, more at home with the space he or she had selected.

As can be seen by the results, very little opportunity for making physical alterations is given to the patient. Only four of the hospitals indicated that patients had ever made any "changes" at all.

8. Is there a formal education program available as an alternative to school missed while the patient is hospitalized?

YES 14 NO 0

All of the hospitals indicated that the educational program was conducted on the hospital grounds and in a space that was specifically designated for this use. The number of teachers and assistants varied with the size of the program. Most of the teachers were provided by the local school board or other governing body which was outside the control of the hospital.

9. Does the hospital have a recreation program for patients?

YES 12 NO 0

There were two qualified answers which indicated that the recreation program was limited either in the scope of activities provided or the time that was allotted to the patients.

Typical recreational activities are listed below in the order of their greatest reoccurrence:

Arts and Crafts (six facilities)
Movies (four)
Table Games (three)
Scouting (three)
Field Trips (two)

Additional activities which were mentioned:

Sewing
Cooking
Cook-outs
Stamp Club
Horticulture Club

All of those hospitals with a recreation program indicated that they had a "large open space" which was designated as the recreation room. In several instances the recreation room was located in the auditorium which would have to serve several different activities. Other recreational spaces mentioned were smaller playrooms, recreation "huts", and outside terraces.

10. Is there an outdoor space available for patient use?

YES 13 NO 0

There was one qualified answer which indicated that that there was an outdoor space available but due to the time and distance involved in getting the patient to the space that it was seldom used.

The outdoor spaces which were available were most commonly used for play and visitation. There were two responses which indicated that the space was used for parent and staff observation of the patient. Additional usages of this space which were mentioned were: picnics, cook-outs, parades, concerts, and a circus. There was no response to indicate that the outdoor area was used for therapy.

The following is a list of outdoors recreational equipment which were commonly provided by the hospitals:

10. cont. Swings
Slides
Shuffle Board
Volleyball
Ping-Pong

Only one of the hospitals responded that the patients could use the outdoor space by themselves. This particular outdoor space was designed as an extension of an interior playroom and was easily observed from the nearby nurses station.

11. Can parents participate in the care of their children while they are hospitalized?

YES 10 NO 2

There were two qualified answers which both indicated that parent participation was extremely limited and was, therefore, not applicable to their program.

The most typical means of parent participation were feeding, bathing, and reading to the child. One hospital indicated that they encouraged parents to participate in "all aspects of care". For the most part, however, parent participation was strictly limited to "non-medical participation".

An average percentage of parental participation would be impossible to tabulate since three of the hospitals responded that the percentage would be either too small to indicate or that they had absolutely no idea as to how many parents were active in the care of their children.

All of the hospitals indicated that there was some post-hospitalization instruction given to the parents but that it was necessarily in a formal program. The most common instructions had to do with cast care and bandage changing.

12. Are facilities provided for parents at the hospital or in surrounding areas?

YES 4 NO 10

The four hospitals which provide facilities for parents all indicated that they offered both rooms and meals at a low cost to the family.

13. What is the hospital's visitation policy?

Three hospitals indicated that visitation for the parents was open. The remaining hospitals all had a formal and somewhat restrictive visitation policy. Two examples are as follows:

2-4P.M. Tuesday, Thursday, Saturday, and Sunday

3-6:30P.M. Daily and 1-4:30P.M. Weekends

14. How would a visitor find his/her way around the hospital? (information booth, maps, directional signs, etc.)

The following is a list of typical methods of giving directional information in the order of their greatest reoccurrence:

Receptional Desk (nine facilities)
Signs (eight)
Ask a staff member (two)
Handbook (one)

15. Does the hospital participate in preparing patients psychologically for coming to the hospital, surgery, lab test, etc.?

YES 7 NO 4

There were three qualified answers which all indicated that there was no formal program at their hospital and that any psychological preparation was left up to the discretion of the attending doctor.

For those seven hospitals which did provide psychological preparation for their patients the most common means of preparation was to have a pre-admission conference. The doctor, parents, and patient would all be at this meeting and the patient could ask any questions that he or she had at that time. Other means of preparation mentioned were pre-admission literature which was sent to both the parents and the patient, a pre-operation film, the use of dolls as props to indicate where the procedure would take place on the patient's own body, and the use of a full-time staff psychiatrist.

16. Does the physical facility have special features which, in themselves, stimulate theraputic or educational activity? (ramps and grab bars, wall decorations of animals, medical equipment, etc.)

The following are examples of "special features" listed in the order of their greatest reoccurrence:

Animal Graphics (four facilities)
Child Oriented Decor (three)
Children's Work on Display (two)
Murals (two)
Solarium (one)
Bird Feeders (one)

17. Are there facilities provided exclusively for staff?

YES 10 NO 4

Typical staff spaces which were mentioned were separate dining areas, lounges, lockers, and bathrooms. Several hospitals also provided facilities for "live-in" personnel. Other spaces which were mentioned were conference rooms and a staff library.

18. Is the community involved with the functioning of the hospital?

YES 10 NO 4

All of the ten responding Shriners hospitals qualify as a community involved facility since the Shriners organization is a community oriented group. Other involved community groups included hospital volunteer and auxiliary groups, firemen, police, and the Air National Guard.

19. Is there an active program to encourage the community to participate more actively in the hospital's programs?

YES 7 NO 7

Typical programs which were hospital initiated to seek community involvement were Bar-B-Qs, hospital tours, community health education and awareness programs, and a circus.

20. What special suggestions would you make for the design and planning of a new children's orthopedic hospital?

The following are selected suggestions from the questionnaires which illustrate various areas of concern by health care professionals:

"Plan an easy escape route for patients in wheelchairs, on crutches or in traction in case of fire or other evacuation."

"A facility designed to meet the patient's needs. An attractive environment, internally and externally, stimulating, and involving the child within the system. Nursery and toddler areas should be scaled and designed to treat age group. Other areas should be designed appropriately for older children including teenagers. Color/graphic/educational stimulation is important. Although we are dealing with handicapping conditions, we are also dealing with children and must meet the child's needs. If the hospital setting could be de-institutionalized it would be a <u>most</u> appropriate step!"

"I would like to stress the importance of the children's orthopedic hospital to have sufficient storage space for stretchers, wheel chairs, and traction equipment."

"Design it to be geared for children."

"Plan areas for the teenagers where they would have as much privacy as possible under the circumstances of hospitalization. Plan a room off the teenage area for recreational purposes as well as a centralized recreational area. Nursing in the round with a minimum amount of effort the staff can monitor the patient's activities although patients are segregated according to age and development, older patients should be close enough to assist with the care of the young children. Many of our older patients like to feed the younger children, it gives them a sense of being within a family situation."

"Design to allow for participation of parents."

"Have smaller rooms (two to four beds), have a section for the teenagers, both bedrooms and recreation. Use bright colors and paintings. Try to give the children's areas a less institutional look if possible. Because of small bed capacity, areas should serve more than one purpose if possible."

"1. A one story floor plan.
2. Geared strictly for children and young adults under 18 yrs. old.
3. Adequate activity areas and open areas surrounding hospital.
4. Comprehensive health attention (dental, therapy, etc.)
5. A swimming pool for consistent physical therapy.
6. Adequate audio-visual facilities.
7. Pre-op area where parents and children wait that is cheerful.
8. Pleasant recovery area for child to wake up in.
9. X-ray and Lab near clinic areas so patient does less walking.
10. Parents' lounge and consultation areas."

Results from Patient Survey, Carrie Tingley Hospital
Truth or Consequences, New Mexico

13 Responses

M 8 F 5

Age:

Years	Responses
0-2	0
3-5	0
6-8	1
9-12	3
13-15	1
16-18	6
19+	2

Family size: Average family size: 9

Persons in Family	Responses
3-4	1
5-6	5
7-9	3
10+	4

Length of stay at Carrie Tingley:

Time	Responses
1 week or less	1
2 weeks	3
longer than 2 weeks but less than 1 month	3
1 month to 2 months	2
3 months or longer	3
"a lot"	1

Number of times to Carrie Tingley:

Time	Responses
1st	5
2nd	2
3rd.	-
4th	2
"a lot"	4

What color would you be?

Color	Responses
Blue	4
Brown	3
Orange	2
White	2
Pink	1
Red	1

Favorite color for your room:

Color	Responses
Blue	4
Red	2
White	2
Green	2
Black	1
Orange	1

If you were an animal what animal would you be?

Bird - 3 Deer - 2 Lion - 1 Dog - 1 Skunk - 1
Horse - 2 Tiger - 1 Cat - 1 Bear - 1

Continued Results from Patient Survey

What do you do with your spare time?

Activity	Responses
Read	3
Sleep	2
Nothing	2
Draw	1
Get wood	1
Shop	1
Look for a job	1
Swim	1
Play	1

What are your hobbies?

Hobby	Responses
Swim	2
Model Making	2
Nothing	2
Ride	1
Draw	1
T.V.	1
Yardwork	1
Art	1
Piano	1
Fishing & Hunting	1

Do you like to read? Yes: 11, No: 2

Do you like to watch T.V.? Yes: 13 (All)

Which do you like better, to be inside or outside? Inside: 2, Outside: 10, NA: 1

Do you ever use the courtyard playground area? Yes: 6, No: 6, NA: 1

What would you like to do in the courtyard playground area?
Responses: swing, sit, be in the shade, walk, talk, be with visitors.

When you go outside where do you usually go? All who responded answered "in front."

Do you ever have visitors? Yes: 11, No: 1, NA: 1

How often do you have visitors?

How often	Responses
every day	2
every week	4
once every 2 weeks	1
other	4 (of which two responses were once a month)

What would you like to do when visitors come? Responses: talk, go somewhere, go outside, show them around.

Are you the type of person who. . .

Likes to be alone	2
Likes to be with one other person	4
Likes to be part of a group	6
N.A.	1

Continued Results from Patient Survey

What sort of decorations would you like to see at Carrie Tingley?
Mickey Mouse, Anything but white (2), pictures (3), fish tanks, there is enough, NA (5).

Would you like to help paint a mural? Yes: 10, No: 2, NA: 1

What things do you like best about Carrie Tingley?

Recreation -4
Don't know -4
Good Food
Nurses
SBP
Grounds (trees)
Visitors coming

What things do you like least about Carrie Tingley?

Not going to recreation -2
Not getting to go outside
Don't know -7
Nurses
It is unorganized
School

*Note - Because of the nature of the survey it was impossible to get a wide range of patient responses. Many patients either could not write or were not feeling well enough to do so. Most of the surveys were taken by patients on the rehabilitation ward.

Results from Clinic Survey, Carrie Tingley Hospital Truth or Consequences, New Mexico

39 Responses

How many visits have you made to Carrie Tingley?

visits	responses
1-2	3
3-5	17
6-10	6
years	12
NA	1

How often do you come to the clinic?

visits	responses
1/week	1
1/month	3
4-5/year	11
2-3/year	15
1/year	2
by apt.	3
NA	4

How long do you usually wait in the clinic? Average wait 1.5 hours.

How far is it from your home to Carrie Tingley? Average distance 80 miles.

Where do you usually wait? All said they waited in the clinic waiting room.

How do you usually spend your time while waiting in the clinic?

45% read books or magazines
45% sit, look around, and watch others
10% wander around, drink coffee, etc.

How many people usually come with your child to Carrie Tingley? Average 2.25 people.

Where do you usually have your meals when you come to the clinic?

66% of those who are at the clinic long enough eat in town
20% bring their own meals
10% eat in the hospital dining room
4% NA

Where else do you go when you are in the hospital?

most:	Xray	some:	Speech Therapy
	Brace Shop		Recreational Areas
	Wards		Other Doctor's Offices
			Bathroom

Continued Results from Clinic Survey

How do you find your way?

Signs	-7
Receptionist	-5
Nurse	-6
Doctor	-3
Themselves	-16

Why does your child come to Carrie Tingley?

Answers ranged from check-ups, cast replacement, etc., to spinal disorders, clubfeet, and birth defects.

How does your child feel about coming to the clinic?

The parents felt that the kids liked the toys, attention, and felt that the children realized that it would help them get well. A few mentioned that the kids hated to miss school or were scared. Overall the feelings were positive.

What do you like least about the hospital?

There were fewer responses to this question but those who did comment mentioned the long waiting periods, the crowded clinic, smoke, and the general appearance of the clinic.

General Comments: Most people could not think of something to add but wanted to emphasize the good feelings they had about the hospital and the staff ("They do a good job.") One individual mentioned the "beautiful grounds." One parent said that she did not have good feelings about Carrie Tingley Hospital because she had been a patient for four years and had some bad memories.

School of Architecture & Planning
UNM
Working Drawings & Specifications 485
Fall - Spring Semester
Robert C. Cohlmeyer

OUTLINE FOR BUILDING CODE ANALYSIS

A. BUILDING CODE ANALYSIS

1. DETERMINE APPLICABLE CODES
2. DESCRIBE BUILDING AND ANY SPECIAL USES
3. DETERMINE BUILDING AREA (GROSS)
4. DETERMINE OCCUPANCY CLASSIFICATION
5. DETERMINE CONSTRUCTION TYPE CLASSIFICATION
6. DETERMINE FIRE ZONE
7. DETERMINE AREA LIMITATIONS (INCLUDING ANY ALLOWABLE AREA INCREASE)
8. DETERMINE NUMBER OF STORIES
9. DETERMINE EXITING REQUIREMENTS
10. DETERMINE DETAILED OCCUPANCY REQUIREMENTS
11. DETERMINE DETAILED CONSTRUCTION REQUIREMENTS
12. DETERMINE DESIGN AND OTHER DETAILED REQUIREMENTS

    a. SANITATION
    b. FIRE PROTECTION
    c. ELEVATORS

OUTLINE FOR ZONING CODE ANALYSIS

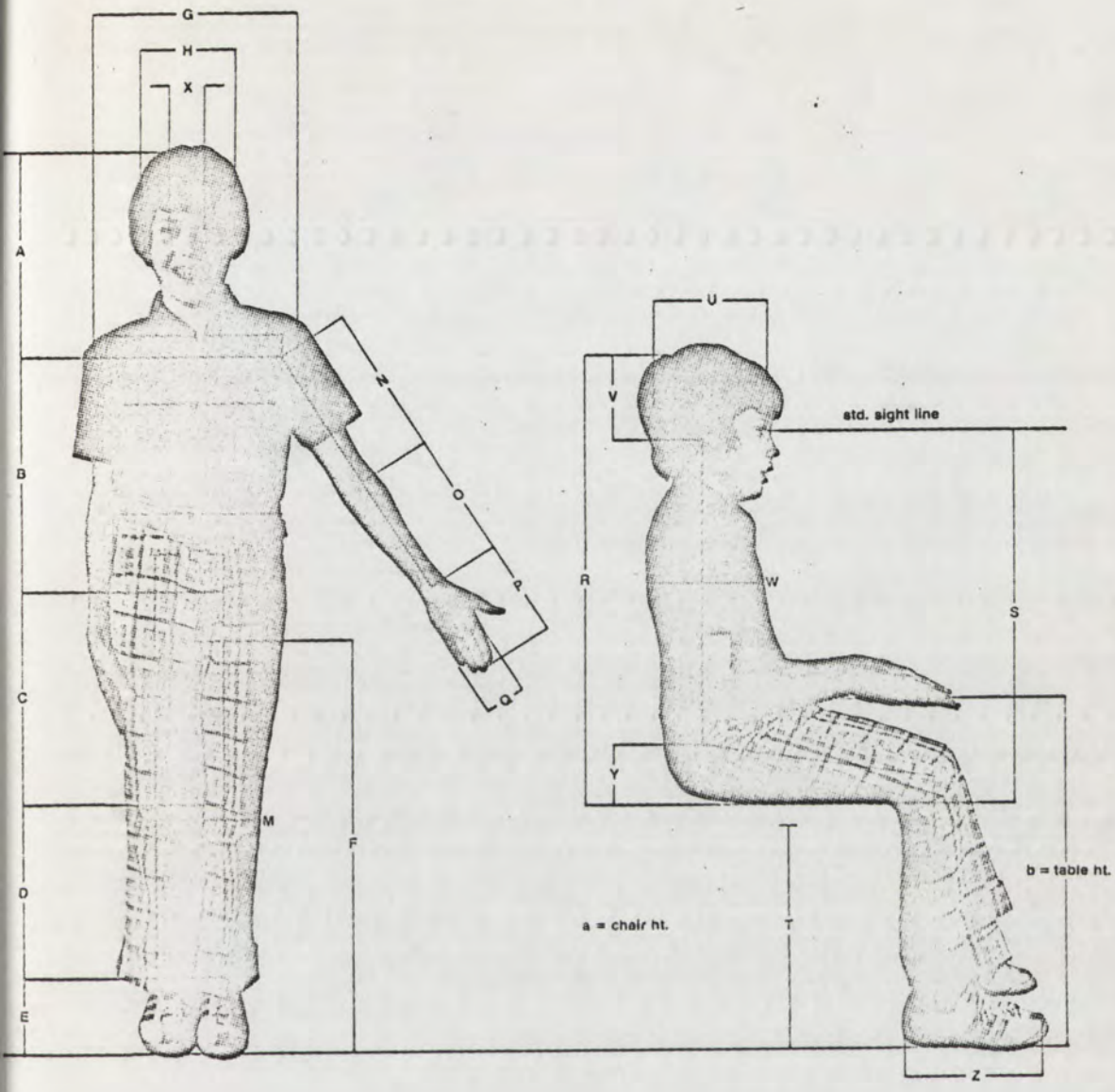
A. ZONING CODE ANALYSIS

1. DETERMINE APPLICABLE CODES
2. DESCRIBE BUILDING AND ANY SPECIAL USES
3. DETERMINE BUILDING AREA (GROSS)
4. DETERMINE ZONING DISTRICT
5. DETERMINE ZONE USE REGULATIONS

    a. PERMITTED USES
    b. HEIGHT LIMITATIONS (BUILDING)
    c. AREA LIMITATIONS (BUILDING)
    d. MINIMUM LOT AREA
    e. MAXIMUM FLOOR AREA RATIO
    f. MAXIMUM FRONT YARD
    g. MINIMUM SIDE YARD
    h. MINIMUM REAR YARD
    i. OFF STREET PARKING
    j. PERMITTED ACCESSORY USES

6. OCCUPANCY CERTIFICATION
7. BOARD OF ADJUSTMENT (APPEALS)

seating design



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132. 118.	11.8 11.3	20.5 19.8	16.2 14.9	15.5 14.5	3.3 3.	31.5 28.9	15.2 14.3	6. 5.8		12.9 12.1	12.7 12.8		3.7	12.2 11.7	9.9 9.1	7.6 7.		34.5 33.4	30.5 29.4	17. 15.5	7.6 7.3	5.2 5.	7.4 6.9		2.8 2.7	9.8 9.4		
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109. 108.	10.9 11.	19.2 18.8	15.1 15.2	14.6 14.3	3.2 3.	29.7 23.5	14.1 14.	5.9 5.7	11.	11.6 11.4	11.6 12.3	5.6	3.6	11.4	9.3 9.	7.2 6.9	3.	32.1 32.4	28.1 28.4	16. 15.	7.4 7.3	5.1 5.	6.9 6.7	2.2 2.3	2.6	9.1		
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figure is for girls.
one figure is shown, it applies to both.


You
are
Invited

TO A PRE-ADMISSION

"LEMONADE PARTY"

Bring your Mom and Dad
and
Let's get acquainted!

DATE SATURDAY MORNING

TIME 10 A.M. UNTIL 12 NOON

PLACE CMSC* LOBBY (BY THE RED CARPET)

*CHILDREN'S MEDICAL AND SURGICAL CENTER
JOHNS HOPKINS HOSPITAL

• • •

If you plan to attend, please call 955-6451 and tell _____ **before noon on Thursday.**

Program includes:

_____ Tour of the hospital, x-ray and laboratory.

_____ Opportunity to see and learn about some hospital equipment which may be used during your admission.

_____ Possible movie about coming to the hospital.

HOPE TO SEE YOU THERE !!!!!!!

A Parents' Introduction to the Children's Center

THE CHILDREN'S MEDICAL AND SURGICAL CENTER

The Johns Hopkins Hospital has a long and distinguished history in the care of children. Its first pediatric facility opened in 1912. Known as the Harriet Lane Home for Invalid Children of Baltimore City, and a gift of Harriet Lane Johnston, a niece of President Buchanan, it began its research, care and continuing service to thousands of sick children and their families.

Under Robert E. Cooke, M.D., the present Children's Medical and Surgical Center, located within Hopkins Hospital, became a reality in 1964 as a result of the combined efforts and resources of two additional Baltimore institutions, with a commitment to the health care of children: the Robert Garrett Fund for the Surgical Treatment of Children and the Eudowood Hospital for the Consumptives of Maryland. Each of these organizations retains its corporate identity, but in their joint cooperative undertaking, they have been able to create a children's hospital greater than any one of them could have achieved alone.

To supplement these services, the Edwards A. Park Building was opened in 1971 to provide expanded outpatient care for children.

TO THE PARENTS

This booklet will introduce you to the Children's Medical and Surgical Center of the Johns Hopkins Hospital and will help to prepare both you and your child for his stay in the hospital.

Your child may want to read this booklet himself and then discuss it with you. If he is too young, the illustrations will help you explain the hospital to him. In addition, each child between the ages of two and twelve years should receive a copy of THE HOSPITAL BOOK, a coloring book especially written for children being admitted to our Children's Center. If your child did not receive one in the mail, please ask someone in the Admitting Office (955-5235) for a copy.

We are interested in making your child's hospitalization as pleasant as possible for both you and your child. It is a good idea to leave other children at home so that you may give your undivided attention to your child on the day of admission. Be prepared to stay the entire day if necessary.

The more your child knows about the hospital, the less likely he is to be afraid. By explaining to him why he is going to the hospital and what the doctors and nurses plan to do, you will be able to reassure him about this new experience.

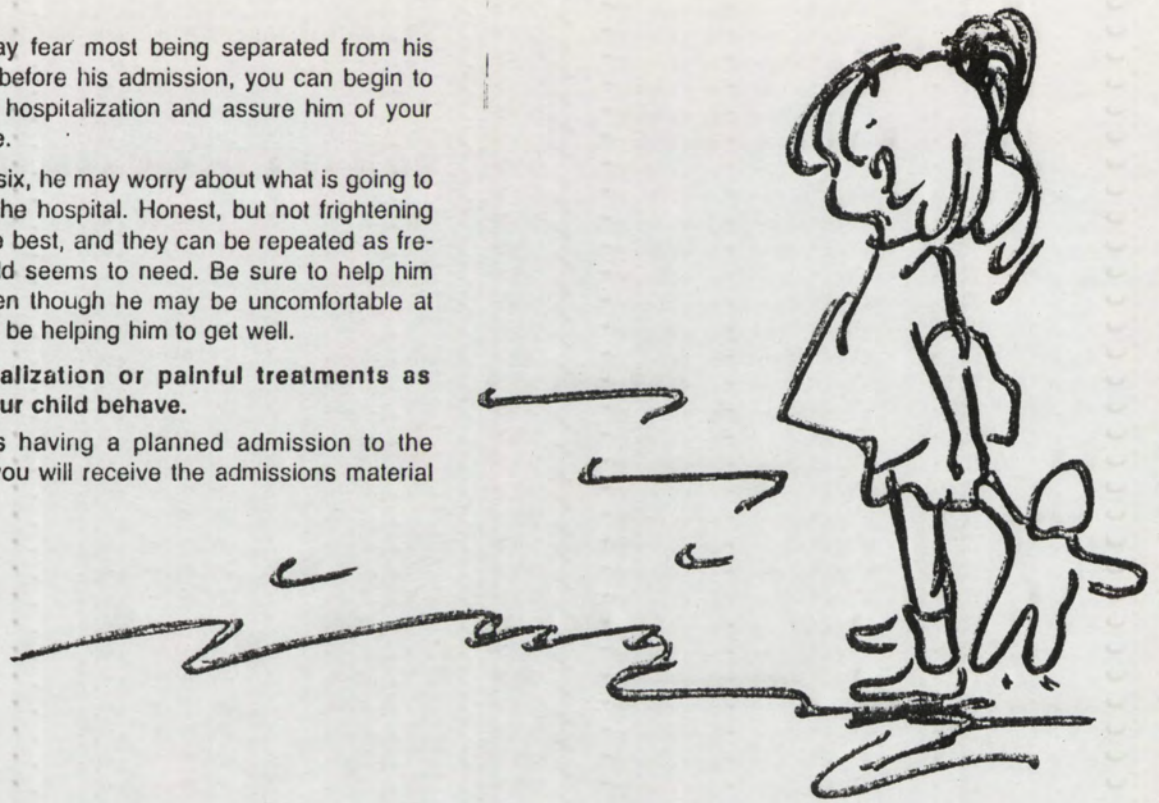
If your child is under two, he probably will not understand very much before his actual admission. But, if he is between

two and six, he may fear most being separated from his family. A few days before his admission, you can begin to prepare him for his hospitalization and assure him of your planned visiting time.

If your child is over six, he may worry about what is going to be done to him at the hospital. Honest, but not frightening explanations are the best, and they can be repeated as frequently as your child seems to need. Be sure to help him understand that even though he may be uncomfortable at times, everyone will be helping him to get well.

Never use hospitalization or painful treatments as threats to make your child behave.

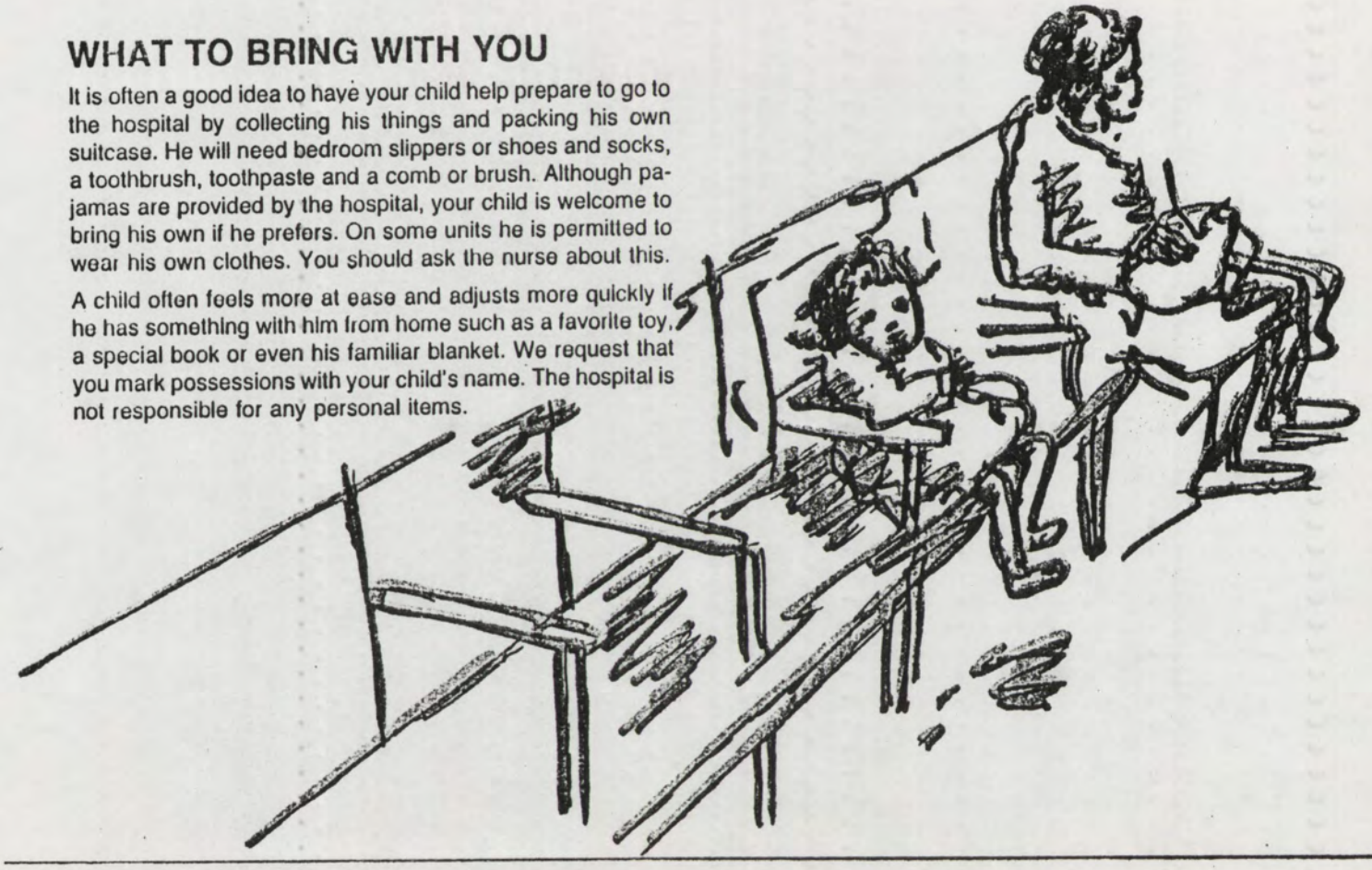
When your child is having a planned admission to the Children's Center, you will receive the admissions material by mail.

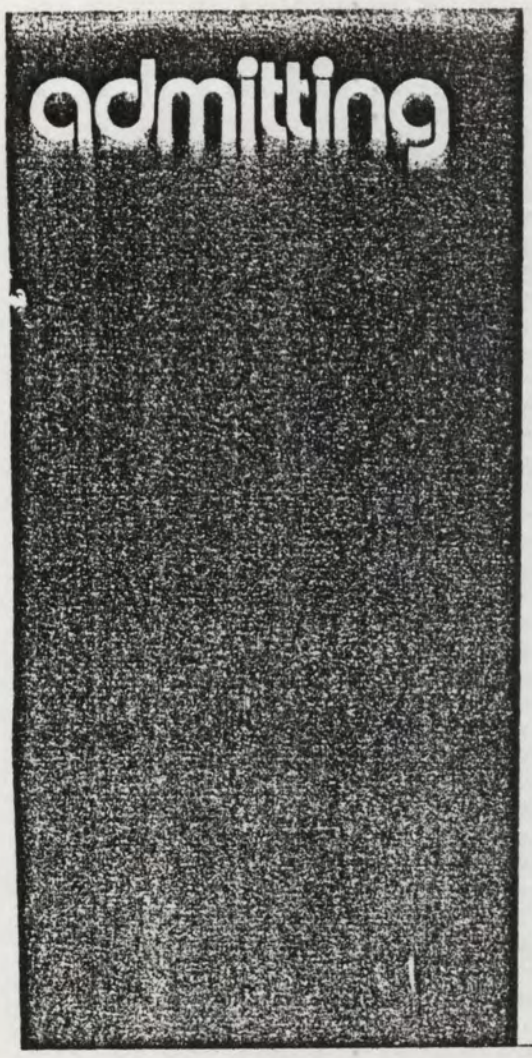


WHAT TO BRING WITH YOU

It is often a good idea to have your child help prepare to go to the hospital by collecting his things and packing his own suitcase. He will need bedroom slippers or shoes and socks, a toothbrush, toothpaste and a comb or brush. Although pajamas are provided by the hospital, your child is welcome to bring his own if he prefers. On some units he is permitted to wear his own clothes. You should ask the nurse about this.

A child often feels more at ease and adjusts more quickly if he has something with him from home such as a favorite toy, a special book or even his familiar blanket. We request that you mark possessions with your child's name. The hospital is not responsible for any personal items.





The Admitting Office will give you a specific time to come to the hospital. Be sure to bring your hospitalization insurance cards and your hospital plate, which will be needed at admission time. Questions concerning financial aid can be answered by the admitting clerk.

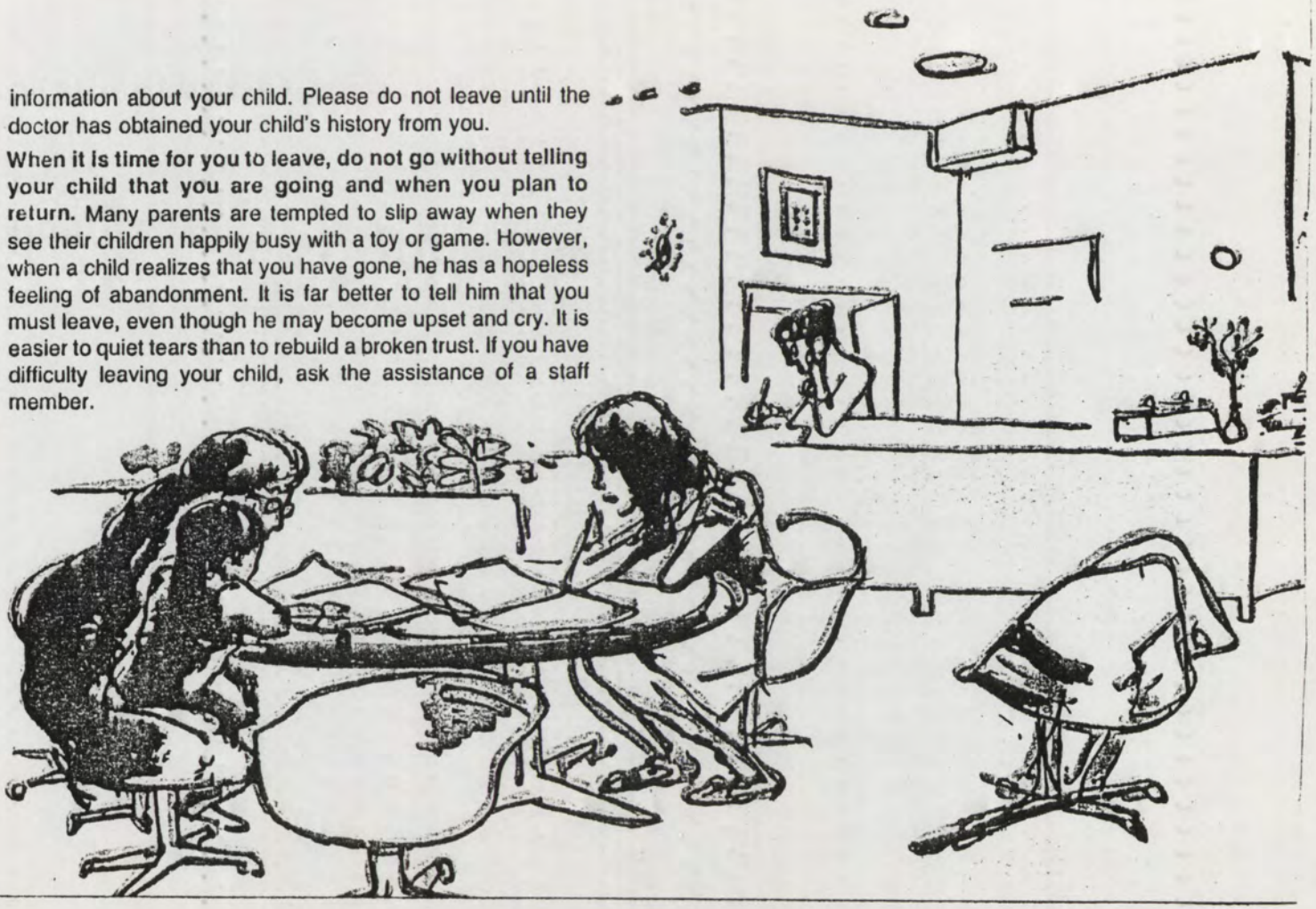
Inpatient facilities at the Children's Center have been planned to provide specialized care to meet your child's developmental as well as physical needs. Your child will therefore be assigned to a particular unit or floor. These units include: Pediatric Clinical Research Unit, Premature Nursery, Infants and Toddlers, Child Neurology, Child Psychiatry, Surgical Service, Recovery Room, Intensive Care Unit, General Pediatric Care and Adolescent Care.

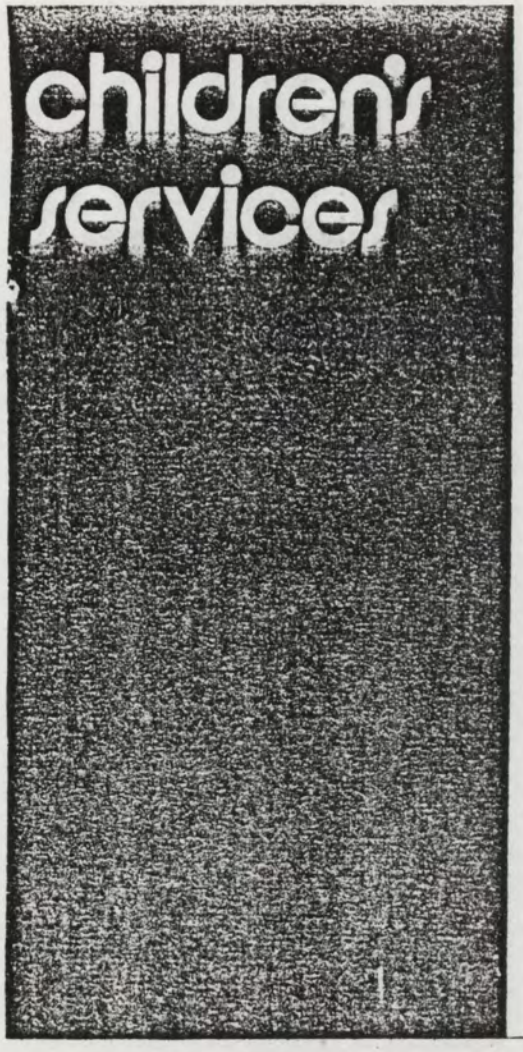
In your pre-admission material, the nursing staff will include specific information describing clothing, visiting hours, regulations, etc. pertaining to your child's specific unit.

Once you reach the appropriate floor, a member of the nursing staff will take the admitting forms and will assign your child a room. One or several doctors will take your child's medical and social history and complete a medical examination. Plan to stay with your child and help him get settled in his new surroundings. Be sure the nurse has explained the use of the "nurse call" button. The nurse may ask you questions or give you a form to complete, which gives us helpful

information about your child. Please do not leave until the doctor has obtained your child's history from you.

When it is time for you to leave, do not go without telling your child that you are going and when you plan to return. Many parents are tempted to slip away when they see their children happily busy with a toy or game. However, when a child realizes that you have gone, he has a hopeless feeling of abandonment. It is far better to tell him that you must leave, even though he may become upset and cry. It is easier to quiet tears than to rebuild a broken trust. If you have difficulty leaving your child, ask the assistance of a staff member.





PEDIATRIC CARE

The Johns Hopkins Hospital is well known for its education of doctors, nurses and others who are part of the medical care team. Therefore, more than one doctor may interview you and examine your child. Having several qualified physicians participate in your child's treatment makes it possible to provide quality care by a doctor 24 hours a day.

To assist the physician, you may occasionally be asked to leave your child's room for a short time while the doctor conducts an examination. We appreciate your cooperation.

MEALS AT THE HOSPITAL

A special pediatric dietitian plans attractive, well-balanced meals that appeal to young patients. Lunch and dinner are served in the play, school and dining areas for the children. As always, you are welcome to be with your child. At mealtime, you can help your child by showing your approval of the food served to him. Even though it may not appeal to you as an adult, it is an important part of your child's medical care, particularly if his doctor has ordered a special diet.

Your child's appetite may decrease when he is sick, and the strangeness of the hospital may take away all his interest in food. But unless there is a special medical reason for eating all the food served, it is generally necessary only to encour-

age your child to taste everything and to eat as much as he can; he will know the amount that is right for him. Because desserts are an important part of a balanced diet, they are not withheld even if the rest of the meal is not finished.

Selective menus are available, and we encourage parents and patients to choose food items, so that, whenever possible, the diet will be adapted to the child's eating habits at home. The selective menu is a useful teaching tool, whether the child is learning a special diet or whether it is used to reinforce good basic nutrition principles. Nourishing snacks may also be planned. Please check with the nurse before bringing food of any sort and do not leave food on the bedside stand. City and state health department regulations also prohibit food storage in the pantries.

CHILD LIFE DEPARTMENT

Play and school are normal activities of childhood and they can and should be continued, even though a child is hospitalized. It has often been demonstrated that planning for his non-medical needs helps the child to adjust more quickly, both in the hospital and when he returns home. The Child Life Department teachers are college graduates in fields related to Child Development and Education who provide a school program and plan activities for all of the patients in the Children's Center.

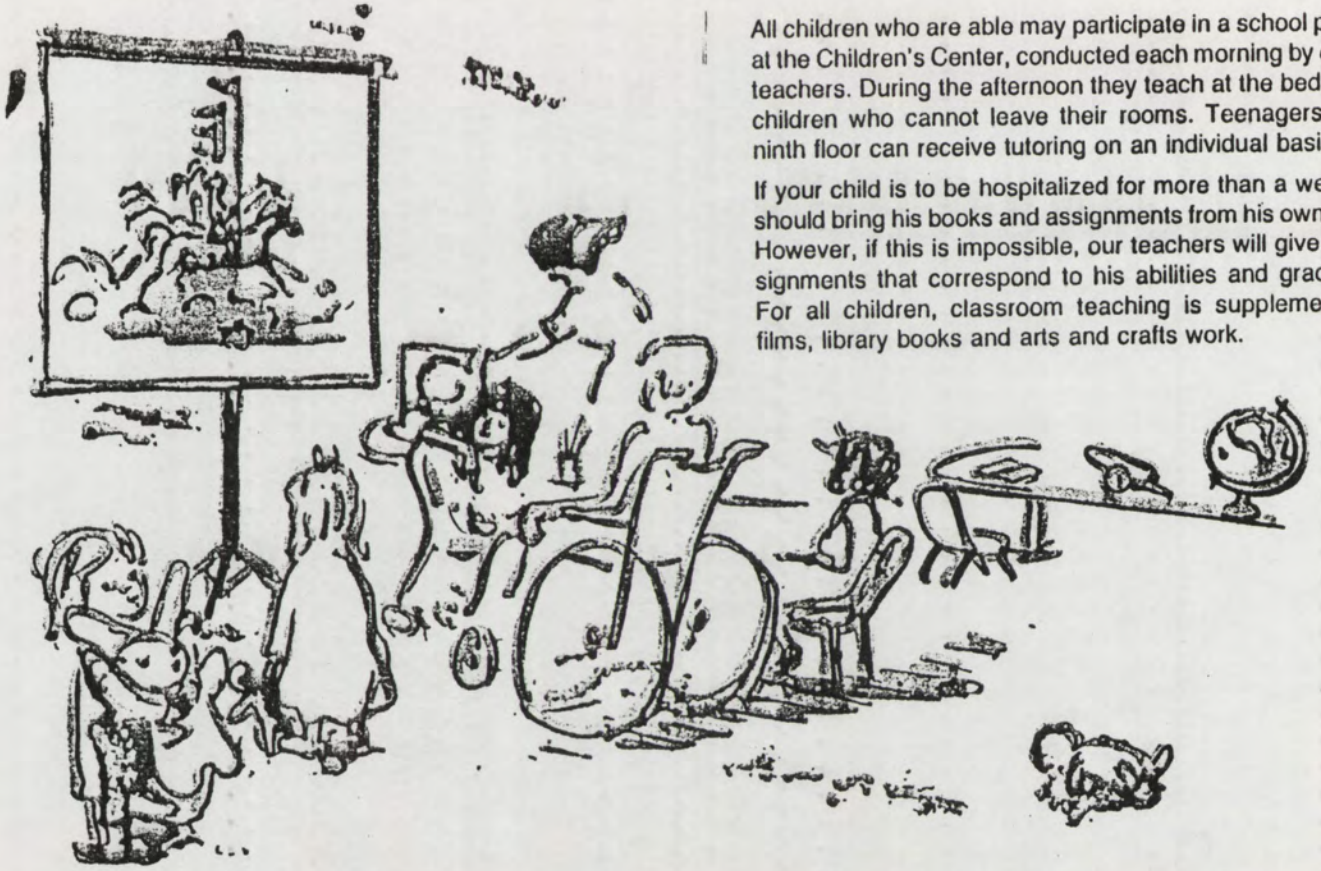
The play, school and dining areas are well equipped with toys, games, creative materials and school supplies for children of all ages. Child Life teachers organize pre-school and school programs for children when they are able to participate. If your child is not able to leave his room, a member of the staff will take activities and materials to him. Members of the Child Life Department invite you to join these activities when you are visiting your child.

THE CHILDREN'S LIBRARY

The Library is open two days a week under the supervision of trained volunteers. All children, even those confined to their rooms, may borrow books. If your child is admitted to the hospital when the library is not open, check with the nurse or borrow books from the Child Life teacher on your floor. When your child is discharged, please remember to return the library books to a Child Life teacher or to a nurse-in-charge.

SCHOOL IN THE HOSPITAL

We realize that school is an important part of a child's life, particularly for the child who is in the hospital for an extended period. School provides a familiar setting and helps to prevent him from falling behind his classmates.



All children who are able may participate in a school program at the Children's Center, conducted each morning by certified teachers. During the afternoon they teach at the bedsides of children who cannot leave their rooms. Teenagers on the ninth floor can receive tutoring on an individual basis.

If your child is to be hospitalized for more than a week, you should bring his books and assignments from his own school. However, if this is impossible, our teachers will give him assignments that correspond to his abilities and grade level. For all children, classroom teaching is supplemented by films, library books and arts and crafts work.

OUTDOOR PLAY AREA

Children are frequently given permission by their doctors to participate in out-of-doors activities supervised by the Child Life staff. The play deck offers a large open space for activities. It can be reached through the third floor outpatient area or through the fourth floor play, school and dining areas. Additional playground space is located in the center of the hospital complex. This is a grassy area equipped with swings and slides where children can take tricycles, wagons and other play equipment.

VOLUNTEERS

Volunteers give many hours of their time to aid the staff in the care of your child. Their contributions are many and varied, such as maintaining the Children's Library, reading to children, assisting the teachers and the nursing staff and providing an extra pair of hands so frequently needed. Volunteers also present a puppet show to certain children, which helps to prepare them for what happens on the day of their operation. Community groups occasionally offer special activities: parties, puppet shows, musical concerts and visits by celebrities.

You can recognize volunteers by their uniforms. Women wear coral colored smocks or jumpers and men wear gray jackets. Teenage volunteers are most active during the summer. The girls wear a candy-striped uniform and boys wear white jackets.

RADIOLOGY

Many patients utilize Pediatric Radiology services, located in the sub-basement (B2) level of the Children's Center. Because the large, strange-looking x-ray equipment can be frightening to children, the x-ray technicians make every effort to be both reassuring and friendly. You may accompany your child if you like.

CHILDREN'S OUTPATIENT SERVICES

A variety of children's outpatient services are available in the Edwards A. Park Building of the Children's Center. These services include an emergency facility, the Harriet Lane screening clinic and many specialty clinics. Among the speciality clinics are: Allergy, Cystic Fibrosis, Chest, Surgery, Premature Follow-up, Child Psychiatry, Cardiac, Diabetic and many others. In the Park Building, there are play areas for all ages staffed by the Child Life Department.

parent services

VISITING YOUR CHILD

While your child is in the hospital, you should try to visit him as often as possible. He will need your reassurance. News about what is happening at home will make his separation from his family less trying.

We advise you not to discontinue visiting because your child seems upset while you are with him or when you leave. He needs to see you often and to count on your continuing support. Studies have shown that children whose parents visit often cry less while they are in the hospital than children whose parents visit infrequently or not at all. When you are ready to leave, tell your child that you are going, as well as when you plan to return. Although there may be tears while you are with your child and when you leave, there are fewer when you are not with him if he is sure of your return. If you are having trouble leaving your child, ask a staff member to help you. She will stay with him until he is calm again, usually a matter of just a few minutes.

Since a child must be at least 12 years of age to visit in the Children's Center it is a good idea for you to arrange to have a baby-sitter at home for your younger children. There is no area in the hospital for you to leave small children unattended while you visit with your hospitalized child.

We know that friends and relatives will want to visit your child, but we ask that you remember to protect your child from becoming over-tired from having too many visitors. PLEASE, no more than two at the child's bedside at any one time. If you wish to bring inexpensive gifts to your child, please be sure they are marked with your child's name.

We realize that distance can make it difficult and expensive for a family to visit as often as they would like. If this is a problem for you, you may contact one of our social workers, who will try to help you with arrangements for your visiting. If it is impossible however, to visit frequently, cards, letters and telephone calls can be very reassuring to your child.

VISITING HOURS

Some floors have different visiting hours. If your child is on the Psychiatric, Intensive Care, Premature Nursery Unit or Adolescent Unit, please refer to the fact sheet which you received with the admitting materials. On all other units, parents, guardians or caretakers may visit at any time. At admission, you will be given a pass enabling you to do so. We ask your cooperation in directing friends and relatives to visit daily from 5:00 p.m.-8:00 p.m. PLEASE, no more than two at the child's bedside at any one time.

If your child has permission to leave his room, you may ac-

company him to the play, school and dining areas. Activities are scheduled on most floors between 10:00 a.m. and 1:00 p.m. and again between 3:00 p.m. and 5:30 p.m.; the Child Life staff is always delighted to have you join the activities. Rest period is observed from 1:00 p.m.-3:00 p.m. This is a good time for you to take a break from the unit. If you have a request for special visiting arrangements, please see the nurse-in-charge.

THE PEDIATRIC SOCIAL WORKER

Your child's illness may be accompanied by other problems and worries such as financial difficulties, home problems that affect your visiting or other personal problems that you may wish to discuss with someone. An appointment with a social worker can be arranged through your doctor or your child's nurse.

CHAPLAIN

The hospital Chaplain, an ordained minister, is available at all times to patients and their families. Assisting him are representatives of the major religious groups. The Chaplain's office is located on the first floor of the Blalock Building; his telephone extension is 5842. If you are unable to leave your child and would like the counsel of a member of the Chaplain's staff, a nurse on the floor will be glad to contact his office for you. A Meditation Chapel for personal and private meditation is located on the first floor of the Children's Center.

HOSTESS

A hostess program provides such personal services as shopping, travel reservations and housing information, to list but a few. Hostesses wear gold smocks and are available 8:30 a.m. to 4:30 p.m., Monday through Friday. To obtain this service during the week, call extension 6446, or ask the nurse-in-charge.

LIVING-IN THE HOSPITAL WITH YOUR CHILD

When the Children's Center was planned, special facilities were included for parents who wish to stay overnight with their young children under five or with children particularly anxious about a hospital stay. If your child is to be hospitalized for a long period of time, it is usually a good idea to live-in until he has adjusted to the floor, visit frequently during the middle part of his stay and then live-in again during the last part of his hospitalization to receive any special directions for his care after his return home. It is also important to

realize the effect that your staying in the hospital with one child might have on the rest of the family at home. Lounge chairs and ottomans which convert into single beds or folding cots, have been placed in patient's rooms throughout the Children's Center. There are shower and dressing rooms on each of the floors.

If you would like to talk with someone about living-in or know that you wish to stay with your child, discuss it with your doctor or nurse. On the Infant floor the living-in space is limited and must be assigned on a first-come, first-served basis.

HELPING WITH YOUR CHILD'S CARE

Each eight-hour shift of staff includes a specific nurse assigned to your child's care. However, you may help with his care as much as possible. Bathing, feeding and helping with toileting needs are things your child may like you to do for him. Please discuss this with a nurse.

CLOTHING

Bring comfortable clothes and shoes when you come to the hospital. In choosing night clothes, remember that you will not have the privacy that you do at home. Because the closet space available for hanging clothing is limited, choose clothing that is serviceable. While towels and washcloths are provided, you will need your own toilet articles.

PARENT ACTIVITIES

Each Wednesday afternoon, there is a get-together of parents living-in the Children's Center. This will give you a chance to talk about living-in the hospital with your child and how you can help your child during his hospital stay. Other planned activities will be posted on the parents' bulletin board in the waiting area on each floor.

PARENT MEALS

There are no meals served to parents who live-in. We suggest that you take the brief times during the day away from your child's bedside to have meals in the cafeteria. Hours are:

Breakfast — 6:15 a.m.-9:00 a.m.
Milk bar — 9:00 a.m.-10:30 a.m.
Lunch — 11:00 a.m.-2:00 p.m.
Dinner — 5:00 p.m.-7:30 p.m.

Vending machines are available 24 hours a day in the cafeteria. Since food creates a housekeeping problem, we ask you not to keep any in your child's room.

OTHER HOSPITAL AND NEIGHBORHOOD FACILITIES

The Johns Hopkins Hospital is fortunate to have many conveniences located either in or near the hospital. A branch office of the Maryland National Bank, a flower shop, a gift shop and a lunch room, sponsored by the Women's Board of the hospital, are located on the first floor.

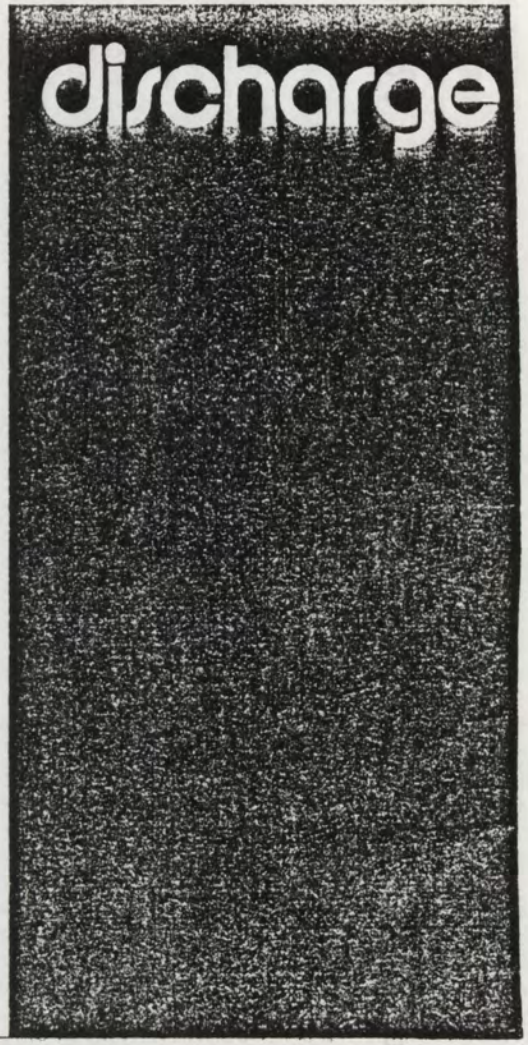
Monument Street shops in the block across from the hospital include a barber shop, shoemaker, tailor and drugstore. Farther east on Monument Street are department and variety stores. Directly across the street from the entrance to the hospital is the 550 Building where you will find a travel agency, gift shop and beauty shop. Adjacent to the 550 Building there is a motel with a cocktail lounge and a dining room. Churches of all denominations are also accessible.

Taxicabs are available at the Broadway Street and Monument Street entrances. You may ask the doorman for assistance at Broadway. Bus service to downtown areas is available on Monument Street. The Hospital's public parking garage is located just south of the hospital on Broadway.

DISCHARGE FROM THE HOSPITAL

The Children's Center continues its concern for your child after he leaves the hospital.The doctor or nurse will answer any last minute questions you may have about medications, special diets, care of dressings, etc. Please do not leave without these instructions. You will be given appointment slips for any future clinic appointments which might be necessary. Please check your child's suitcase to be sure that none of the toys or books belonging to the hospital are mixed in with his belongings and ask for a property pass which you will give to the guard at the exit. Someone will accompany you to the door.

When your child is home again, he may not act like himself for several days. If your child is under five, he may seem very clinging and upset. This does not mean that he is spoiled, but that he needs your reassurance that he will not be separated from you again. Your child may also have nightmares or want to talk about his experiences at the hospital. You can help him best by taking the extra time to listen. Patience and a little extra affection will help him return to normal quickly. If your child is especially disturbed for a long time following his return home, it would be a good idea to discuss it with your doctor.



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Curious George Goes to the Hospital
by Margaret and H. A. Rey; for children up to ten.

The Girl in the Opposite Bed
by Honor Arundel; a novel for older children.

The Hospital Book
by Barbara S. Haas; a coloring book written especially for the Children's Center.

Let's Find Out About the Clinic
by Robert Froman; a book that helps explain the clinic for younger children.

Let's Find Out About the Hospital
by Eleanor Kay; a book for children from five to ten years.

Let's Go to the Hospital
by Forence W. Rowland; a book for children eight years and up.

What Happens When You Go to the Hospital
by Arthur Shay; a storybook with actual photographs, for children up to age twelve.

Why You Get Sick and How You Get Well
by Ilse Goldsmith; for older children and young teens.

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FOR

HUMANISTIC PLANNING FOR PEDIATRIC ORTHOPEDIC HOSPITALS

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Spring 1978

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