The Family Physician's Office: Proposed Design Criteria for Family Centered Medical Care

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Four design criteria, home extension, personal extension, family centered environment, and patient education, are explored as guidelines for creating a therapeutic atmosphere in the family physician's office. They can be applied to the entryway, waiting and reception areas, hallways, examination rooms, nurses' station, laboratories, and the physician's private office. They are intended not to replace the traditional design criteria of efficiency, economy, safety, and convention, but to enhance their effectiveness. This occurs when the total environment, physical, administrative, and social, is consciously managed for the purpose of patient therapy and staff well-being. Attention to family centered design criteria facilitates this management and helps to ensure that many components of the health-care system benefit the patient.

The philosophy of family practice includes care and treatment of the whole person, including his or her family. The physical environment has been shown to affect patient behavior, staff-patient interactions, and ultimately the entire health care delivery process.[1] Yet the design of the family physician's office reamins one of the least considered and least understood variables in this process of health care delivery.

Seasoned practitioners are accustomed to their surroundings and may not notice or consider the impact of the design of their offices. Diagnosis and treatment are, as they should be, primary considerations of the physician. Through conscious and sensitive office design, however, it should be possible to enhance and facilitate relationships with patients, reduce unnecessary tension, and perhaps even impove diagnosis, treatment, patient compliance, and continuity of care.

This discussion of the design of the physician's office will begin with a review of the literature and continue with a description of a traditional physician's office and criteria that seem to be applied to its design. Finally, design criteria that reflect the family practice philosophy of medical care delivery will be proposed.

Literature Review

Several studies have been done to determine the effects of the general environment on the individual.[1-5] Little, however, has been done with respect to the effect of the health care environment, particularly the physician's office. The few available articles are poorly documented and/or deal primarily with hospitals. No research has been located that deals with the effect of the family physician's office on health care delivery.

There are publications that address layout

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and/or remodeling of physician's offices.[1,6-8] These tend to take a very practical approach and frequently reflect economic rather than psychologic or therapeutic considerations.[9]

Beck, for example, in a book devoted entirely to the physician's office, makes no reference to interior design considerations, for either aesthetic or therapeutic purposes.[8] His view of the office is from the perspective of the economics of practice: leases, square footage needs, space costs, space arrangements, and so forth.

The impact of office design on patient behavior has been considered chiefly in the fields of pediatrics and psychiatry. In a discussion of the design of a pediatrics ward in a large general hospital, Traska argues the importance of bright vivid colors, soft carpets, and familiar toys.[1] A sense of patient comfort and security is felt to be an important feature of the total treatment plan. He states, "unless a designer understands the behavior and needs of patients who use or occupy a given area, the designer could unknowingly create destructive or degrading situations, instead of settings that encourage recuperation and rehabilitation."

Although little is known about the impact of the physician's office on the patient, the physician, and the staff, some relevant information can be drawn from the literature of design psychology. There has been some research on the general effects of "ugly" and "beautiful" rooms on subjects.[10] Mintz found in a carefully designed laboratory study that subjects who performed tasks in an ugly room experienced monotony, fatigue, headaches, sleepiness, discontent, and irritability about the room, while subjects who performed similar tasks in a beautiful room experienced pleasure, enjoyment, importance, energy, and a desire to continue the activity.[11]

Cultural factors also have been investigated to determine the impact the arrangement of space has on an individual's concept of comfort with others.[12,13] In commenting on spatial impact of ward design on psychiatric behavior, Osmund argues that "the chief consideration is that the patient should not be removed from that usual environment that is important to them."[13] It will be argued that "home" is the most familiar of all environments to most people and should be used as the design metaphor in physician office design.

Attempts to examine the impact of design on patient care have been few. One review of literature, relevant to hospitals and the ecology of patient care, indicates that hospitals are generally designed for efficiency and function.[14] Not suprisingly, the aesthetic and sociopsychological comfort of the patient takes a lower priority than meeting acute medical needs.

In the early 1960s Rosengren examined the effect of various hospital environments on physician-nurse-patient relationships.[15] It was found that more aspects of patient care were affected by the staff's behavior than by the physician or the environment. The environment, however, did modify physician-nurse and physician-patient behavior and relationships and, consequently, indirectly had an impact on patient care. Rosengren found the highest level of open communication between physicians and staff occurred in "casual areas." In the "official spaces," the superordinate position of the physician restricted some important communications. Perhaps building a more casual physician's environment would similarly affect physician-nurse and physician-patient relationships accordingly.

In a recent attempt to design a pediatric outpatient waiting room that met patient needs, Olds theorized that when the environment minimizes anxiety and distress (is welcoming, comforting, and supportive), it may actually be used in prevention, treatment, and recovery.[16] Pain, illness, and injury are upsetting, and the anxiety aroused by a visit to the physician is compounded by unfamiliar people and a frightening institutional setting.

The implication from existing research is that environment may make a difference. If the philosophy of family practice is to treat the whole person, it is reasonable to do so through office environments as well as direct patient-physician contact. The office environment is in many ways the extension of the physician. It is possible to create a patient and family centered atmosphere in the office and thus directly reflect the family practice philosophy.

The Physician's Office: A Traditional View

Although it could be said that no two physician's offices are alike, unfortunately most physicians' offices are similar.

The *entryway* is a small isolated space inside the

entrance door affording some shelter from the weather and a place for hanging coats.

The *waiting area* provides seating for about ten people. Chairs are usually straight-backed, plastic, and lined up against the wall, separated by an occasional magazine rack or end table. Walls may feature prints, health posters, and directives such as "No Smoking." Some waiting areas contain plants.

The *reception area* is the domain of the receptionist and occasionally the nurse. It holds the office essentials of desk, typewriter, telephone, and files. Generally, this office area is separated (or barricaded, as it sometimes seems) from the waiting area by a high counter.

From these outer areas, one usually approaches the *medical examination area* through a long *hallway* with examination rooms off to the sides. The rooms are small, each usually containing an examination table, a chair, a physician's stool, and a counter.

The *nurses' station* or mini-laboratory is a small, isolated area where one finds microscope, centrifuge, autoclave, and other laboratory equipment.

The physician may have a *private office*, which allows privacy for reading, writing, telephoning, and dictation. This is probably the most personalized area in the office; it often contains comfortable chairs, a desk, diplomas, family pictures, mementos, and other personal items reflecting the physician's interests and nonprofessional life. Ironically, this area is rarely seen by the patient.

Physicians' offices, at least the areas seen by patients, tend to be sterile, impersonal, stressful environments. They are functional, but lack a patient or family centered atmosphere. The physical aspects of such offices fail to enhance patient-physician interaction and the delivery of health care as positively as they might.

Traditonal Design Criteria

Following are four criteria implicit in the design of the traditional physician's office: (1) *efficiency*, the design and organization of an office to assure rapid movement of patients through the examination process to fully economize the time and energy investment of the professional staff; (2) *economy*, the design and furnishing of an office to control overhead costs and reduce maintenance and care; (3) *safety*, the design of space to reduce hazards and eventual liabilities; (4) *convention*, basing one's office on familiar models in the absence of other design criteria. Because medical training takes place in hospitals, the hospital becomes the prevalent design model.

The first three criteria are indisputably important and necessary considerations in the design and organization of a family physician's office, yet they are not sufficient for creating a patient and family centered environment.

The Physician's Office: A New Approach

Family physicians need to experiment with modifying their office environment to enhance and reflect the family centered approach to patient care. The following design criteria are proposed as means of accomplishing those goals: (1) home extension, (2) personal extension, (3) family centered environment, and (4) patient education.

Home Extension

The concept of "hard" and "soft" architecture is important to consider in designing an office that is an extension of the home. Hard architecture generally uses materials that are resistant to human imprint (formica, concrete, asphalt, nylon, stainless steel). Soft architecture, on the other hand, uses materials that absorb human imprint and show wear. Soft architectural materials absorb and reduce noise and usually require human crafting and personal care in their maintenance (carpeting, corkboard, wood, fabric, wallpaper).

This society has grown to depend on mass produced synthetic materials and leans heavily toward hard architectural environments. Physicians' offices are no exception. It takes conscious effort to "soften" the spaces occupied. People who do this easily in their homes somehow fail to extend the same concern and initiative to the design of their work environment.

Home extension implies that the family physician's office is an extension of the physician's, staff's, and patient's homes. The office is furnished and arranged to create a comfortable, homey atmosphere. With little sacrifice of practicality, couches and chairs covered with washable vinyl could replace molded plastic seating. Floor

and table lamps could replace overhead fluorescent lighting. Live plants, fish, or other living things, pictures of people, as well as the seating and lighting arrangement, all encourage a sense that the waiting room is a living room in someone's home.

Homelike qualities and human, personal touches are needed throughout the office. The intensity of patient-physician involvement in hallways and treatment rooms deserves a sensitive setting. The ease and willingness of people to share freely is affected by environment. The addition of objects associated with home life can help achieve "humanizing" this environment. Hand hooked wall hangings, mobiles, and photographs of recently delivered infants are examples of extensions of home and family.

It can be difficult for patients to share intimacies when they are seated on an examining table or in stiff, uncomfortable chairs facing a physician hidden behind a desk. Eliminating physical barriers and establishing comfortable social distances between physician and patient encourages personal communication so necessary in diagnosis. To facilitate this, a conversation area can be created beside the desk by placing the desk against the wall instead of between the physician and the patient. An area rug is another effective addition to a conversation space, even in a small office.

Creating a homelike environment in the office helps patients and staff feel more comfortable. Patients, particularly those contending with the pain and worry of acute illness, deserve all the comfort that can be provided.

Personal Extension

Personal extension is closely related to home extension as a criterion for office design. A physician's office can reflect the individual personalities of the physician, staff, and patients. This is possible by furnishing and decorating the office with personal articles from these people. As with home extension, personal extension involves modifying the environment to facilitate communication.

Patients appreciate being able to feel that they are more than sick people in the physician's eyes. They should be encouraged to communicate aspects of themselves that express who they are in terms of their hobbies, activities, and talents (carpenter, gardener, writer, etc). Accepting or purchasing artwork or crafts made by patients is a way to encourage this communication. The physician and his/her staff need to contribute a sense of themselves as well. This can be done by adding their own personal touches to the environment.

Family pictures, drawings by school children, paintings, and handcrafted accessories all add personal flavor to an office. For example, when a physician learns that one of his patients knits Christmas stockings to supplement her Social Security income, he could order one for the office. In another instance, a receptionist could bring in an arrangement of African violets for her area, and encourage an exchange of cuttings with patients from their own favorites. The importance of added personal interest and response should not be underestimated. When patients return to the physician's office and find a little bit of themselves, they begin to feel a sense of relationship to the practice.

At the very least, the personal extension design criterion ensures that the office does not look like a single grant purchase from the local medical supply house. In applying this design criterion, the office becomes a composite of the touches of many persons. The criterion's importance is its impact on health care. "Clues" from the physician and his staff about themselves, their families, and their personal interests help to open up communication and establish some level of psychological identification. For example, knowing that one's physician is a parent can make it easier to share the frustrations of parenting. Knowing that the physician has experienced comparable accidents, disease, or personal loss can give the patient confidence that the physician will empathize with his/her situation.

Family Centered Environment

Home and personal extension design criterion are integrated by creating a family centered environment. The design of most family physicians' offices fails to provide space for *family* diagnosis and counseling; waiting rooms lack the privacy for such contacts, and examining rooms are usually too small and inadequately arranged. Yet meeting the needs of entire families is the cornerstone of family practice theory, providing something more than serial care for individual family members.

Because space is and will continue to be at a premium in physicians' offices, greater flexibility

is required in designing examining areas to accommodate family groups. For example, installing moveable soundproof partitions allows for large areas to be opened up to make room for family groups to be seen and counseled.

Aside from not providing environments for families as a whole, certain members of families are frequently neglected. Many offices fail to provide child sized tables and chairs, toys, children's books, or magazines.

Patient Education

Patient education is an intrinsic goal of family practice theory, and the physician's office should be designed to enhance this process. In addition to verbal instructions, patient education involves the use of pamphlets, posters, tapes, slides, toys, and demonstration models to facilitate patient acceptance of responsibility for his own health care. Providing space and other facilities for patients to practice health maintenance (eg, self-injections, breast examination) should improve patient compliance. Carefully selected educational materials can facilitate communication. Being able to refer to demonstration models or diagrams can alleviate awkwardness.

Conclusion

Implementing these additional criteria in the design of the family physician's office can result in an environment that has been termed a "therapeutic milieu." This occurs when the total environment, physical, administrative, and social, is consciously managed for the purpose of patient and staff therapy. Creating a therapeutic milieu reduces the egocentricities of primary therapists and focuses attention on the contributions of other aspects of the practice. Attention to design criteria helps to ensure that many components of the health care system benefit the patient.

The physician's office is more than a neutral setting in which medical events take place. It is one of the components of the medical event, or encounter, and it qualitatively affects the outcome. Conscious and sensitive planning needs to be incorporated in the decorating and designing of a family physician's office. Criteria such as efficiency and economy play a determining role in existing office design, but sadly, existing office design falls short of creating a therapeutic milieu, an atmosphere conducive to positive medical encounters.

Family practice philosophy includes care and treatment of the whole person, including his or her family. It is incumbent on family physicians to establish and realize new criteria for office design and decoration that will contribute to a family centered environment that enhances this treatment.

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