Architectural Design of a Secure Forensic State Psychiatric Hospital

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This article describes the architectural design of a secure forensic state psychiatric hospital. The project combined input from staff at all levels of the client organization, outside consultants, and a team of experienced architects. The design team was able to create a design that maximized patient dignity and privacy on one hand, and the ability of staff to observe all patient activity on the other. The design centers around 24-bed units, broken into smaller living wings of eight beds each. Each eight-bed living wing has its own private bathrooms (two) and showers (two), as well as a small living area solely reserved for these eight patients and their guests. An indoor-outdoor dayroom allows patients to go outside whenever they choose, while allowing staff to continue observing them. The heart of the facility is a large treatment mall, designed to foster the acquisition of social, emotional, cognitive, and behavioral skills that will help patients to safely return to their communities. Copyright © 2002 John Wiley & Sons, Ltd.

The Colorado Mental Health Institute—Pueblo (CMHIP) is one of two mental health institutes operated by the State of Colorado, and the only one to serve forensic inpatients. CMHIP is accredited by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) and has approximately 500 inpatient beds, with about 300 patients residing in its Institute for Forensic Psychiatry (IFP). The other clinical divisions at this hospital are the General Adult and Adolescent Division and the Geriatric Division; a Medical and Surgical Services unit provides medical evaluation and treatment for patients from each hospital division and the Colorado Department of Corrections (DOC).

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Because CMHIP has the only forensic inpatient division in the state, IFP admits individuals committed under a variety of legal statuses. Approximately 200 of the 300 IFP patients have been found not criminally responsible (Colorado's version of the insanity defense). Other legal statuses include incompetent to proceed, civil commitment from Colorado jails, transfers from DOC, and inpatient forensic evaluations (competency, sanity).

In 1997, the State of Colorado decided to explore building a new secure forensic psychiatric facility to replace several buildings at the CMHIP. The existing buildings were deemed to have security problems, such as a suspect perimeter and the presence of "blind spots" on the wards, and were poorly designed in regard to the active treatment that characterizes modern psychiatric care, lacking well designed space for treatment, meetings, and offices.

Early on, the leadership of the CMHIP facility expressed the desire to create an environment that would foster active treatment within a highly secure environment that would prevent escape and ensure the safety of the patients and staff who would live and work there.

This article describes the process that led to the creation of the facility design, as well as the substantive details of the architectural design. Currently, the facility design is complete, and the design team is waiting for legislative funding to start construction.

REVIEW OF THE PSYCHIATRIC LITERATURE

The literature within the mental health disciplines on the architectural design of forensic psychiatric facilities design is sparse. In general, the literature that does exist emphasizes the importance of a safe physical environment that promotes intensive treatment with reasonable privacy and observability. Dvoskin and Patterson (1998), in a chapter on forensic mental health administration, discussed a number of facets of the capital planning and design process. The authors noted that architects need input from people who will use the building, specifically staff who work with patients who will live there and the patients themselves. They further advised that administrators should tour other facilities and the operator of the new facility be continuously and significantly involved in the capital planning.

Watson (1998) described one such design process in England, which was led by the clinicians who were to run the unit. The article included not only clinical information, but aspects of the budgetary and architectural landscape as well. Watson also included information about responding to community resistance in regard to a new forensic psychiatric facility. The author recommended design components "that were based on preferences of mental health professionals and forensic psychiatrists (and) included a high standard of building and design to challenge the stigma attached to clients, (a) desire to create hospital buildings with a comfortable domestic scale and ambience, (a) desire to build unobtrusive security features into the wards, and reflection of treatment goals in the interior ward design."

Similarly, Remen (1991) concluded that facilities "must offer a safe, comfortable, non-threatening, and readily comprehensible set of surroundings to support the therapy taking place there. All messages sent by the environment must convey sincere respect for the patient and sensitive concern for his or her physiological and psychological well-being."

Several articles have discussed the architectural aspects of non-forensic psychiatric or mental health facilities. In discussing renovation of an existing non-forensic mental health facility in Jerusalem, Gutkowski, Ginath, and Guttmann (1992) stressed the importance of a sense of freedom among patients, as well as more general therapeutic influences such as lighting, bright paint, and subdivided spaces within the common areas.

Holahan (1974) reported on two studies. The first manipulated dayroom seating arrangements, finding, again not surprisingly, that sociofugal seating arrangements (i.e., those making it easy to avoid social interactions) impeded social interaction on the ward. More interesting, however, was the second study, which "predicted and found more social and active behavior and less passive and withdrawn behavior on a remodeled psychiatric ward where remodeling was based on patient preferences and on observations of ward behavior than on an unchanged control ward."

Finlay-Jones and Nielssen (1993) examined the optimum size of a place for the maximum security treatment of mentally disordered offenders in Sydney, Australia. The authors concluded that "the notion of an optimum absolute size for such a place, in terms of either people or physical plant, is ridiculous." However, they too stressed the importance of rehabilitation, quality of care, and cost-effectiveness in designing secure units.

Perhaps the most helpful treatise on facility design was offered by Vachss and Bakal (1979) in a book describing the design of an ideal program for "The life-style violent juvenile." In this remarkable book, Vachss and Bakal offered specific architectural concepts, and included sketches of the architectural design they envisioned. Though not aimed at an adult forensic psychiatric population, the needs of violent juvenile offenders are in many ways analogous to this population, including the need for intensive treatment within a safe environment, for privacy and observability, and for an environment that fosters the acquisition of skills.

REVIEW OF THE ARCHITECTURAL LITERATURE

According to the Justice Department's Bureau of Justice Statistics, prisons and jails in America held a record 1,860,520 inmates at mid-year 1999, 58,333 more than a year earlier. The number of inmates in 1999 is more than double the 1990 prison and jail population of 712,000 inmates. In 2000, almost 6.5 million people were under some form of correctional supervision and the incarceration rate had more than tripled since 1980 (Bureau of Justice Statistics, 2001).

This explosive growth in correctional bed needs resulted in the development of a significant industry built up around the design and construction of correctional facilities. This growth likewise created a market or need for standards and information about the design of correctional facilities. This need was met in part by the American Correctional Association (ACA) (1983) and the American Institute of Architects (AIA) (1996), as well as numerous publications by government agencies and private publishing houses. The ACA has played a significant role in meeting this need through its promulgation of standards and distribution of publications and magazines, including *Corrections Today*. The AIA, through the Committee on Architecture for Justice, publishes a yearly compilation of the best 35 projects built around the country each year.

In contrast, psychiatric hospital beds have markedly decreased in association with deinstitutionalization and managed care. According to the Center for Mental Health Services (Manderscheid & Henderson, 2001), the number of hospital inpatient and residential treatment psychiatric beds decreased by half, from 524,878 in 1970 to 261,903 in 1998, with the corresponding bed rates per 100,000 civilian population dropping even more in the same period from 264 to 97. In addition, the census in state mental hospitals dropped from 560,000 patients in 1955 to 64,000 patients in 1998.

In the private sector, this transfer of patients from state to community facilities resulted in a substantial increase in the number of private psychiatric hospitals and non-federal general hospital psychiatric inpatient and residential services during the 1980s. Subsequently, in association with overbuilding, there were mergers, down-sizings, and closings of some of these hospitals. During the 1990s, the number of inpatient beds was more stable.

In the public sector, the reduction in beds resulted in "mothballing" and the conversion of unused existing facilities for other uses. There was very limited construction of new state mental health facility beds. Where construction of new beds has occurred, it has been sporadic and generally driven by litigation, standards compliance, patient care, life safety, and security issues. As a result, publications related to the design and construction of secure psychiatric hospital facilities have been for the most part limited to standards promulgated by the Joint Commission on Accreditation of Health Care Organizations (JCAHO, 1998) and the AIA Academy of Architecture for Health with the assistance of the U.S. Department of Health and Human Services (AIA, 1996).

ARCHITECTURAL DESIGN OF A SECURITY HOSPITAL

Master Planning

As is the case with many of the mental health campuses around the nation, the Colorado Mental Health Institute in Pueblo was charged with housing and treating patients in facilities built in the 1930s. The facilities have remained accredited by JCAHO based on the professionalism and commitment of staff, but suffered from numerous safety, security, operational efficiency, flexibility, and space issues.

To address these issues, the Colorado legislature funded the development of a master plan in 1997 to establish a long-range plan for the growth of the campus to the year 2007. The framework established needed to outline parameters for growth while maintaining flexibility. Equally important, it was to be structured enough to prevent near-term projects from blocking opportunities for the best, most efficient, long-range development of the campus.

The master planning process focused first on identifying the macro-level goals and visions for the campus by multiple state agencies (Department of Corrections, Department of Human Services, Division of Youth Corrections, Mental Health Institutes, etc.). These included existing and potential future programmatic needs, compatible and incompatible uses, the viability of existing spaces/buildings for proposed programs, and the implications and opportunities of serving multiple

populations. Once each agency's vision was established, strategic programs were developed for each facility proposed for the campus, and key decision makers were brought together to identify alternative planning scenarios and build consensus on the best approach.

The master plan recommended the total replacement of the existing mental health beds and the consolidation of these mental health beds and services on the north end of the 290 acre campus. The master plan established the justification for new mental health facilities, identified the needs of other state agencies for existing mental health facility buildings that would be left vacant by new facility construction, and started to build the community, agency and legislative support that is key to achieving design and capital construction funding.

Facility Programming

Program planning for the High Security Forensic Institute began with a visioning workshop to identify a macro-level vision of the staff and user needs. A series of interactive programming sessions were then held. The first session established major functional needs, treatment program requirements, security and safety issues, overall functional relationships, and adjacencies to be incorporated into the design. Follow-up sessions identified detailed space program requirements (essentially a departmental list of spaces and the people who would use them) and functional relationships for individual departmental areas, security concepts, environmental concepts, daily schedules, and staffing requirements.

Once a draft architectural space program had been established, a concept planning session was held to build consensus for the site location and macro-level facility design concepts. The concept plans developed during this session provided a refined spatial organization that took into account the need for operational efficiency along with future expansion needs for the facility.

The final facility program plan provided a detailed representation of the physical and operational objectives to be achieved in the project and served as a guide for the translation of written and graphic objectives into design.

The Design Process

If a facility design is to be successful, it is essential that at each step in the process the design team work closely with the managers and users who will "live" in the facility for the next 20 to 50 years. The architect, RNL Design, and its consultant team believe that an interactive design process allowing clients and users to actively participate in developing the design is the best way to achieve a truly responsive facility. For this facility, mental health management and line staff were invited into interactive design workshops and given the opportunity to influence planning as it happened. These sessions consolidated one or more work sessions, which would normally take weeks or months to accomplish, into several days of intensive brainstorming.

While this process may have involved greater numbers of people, the process allowed streamlining of the approval mechanisms and created an atmosphere of excitement. In addition, when the facility opens the users will know why the facility was built the way it was and the expectations for the delivery of services and treatment. This will minimize transition and training time required by staff to open the facility and mitigate against the resistance to and/or the fear of change often exhibited by staff when faced with moving into a new treatment environment.

Input from the patients was particularly important to the design team. Preliminary concepts were shared with patients on the existing wards, serving two ends. On one hand, there was a wish to share with patients the unfolding plans as a gesture of respect to the people who would be most affected by the new building. On the other hand, there was a sincere wish to solicit insights and information from the patients, who know the strengths and weaknesses of the current buildings better than anyone.

Design Goals of the Hospital

The CMHIP leadership wanted a facility that would foster the goals of psychiatric treatment, yet allow staff to observe all of the patients in order to ensure the safety of the building's occupants. Each housing unit (versus ward, as staff felt the term "ward" carried a negative connotation) needed adequate on-unit meeting and programming space to allow for the active programming of patients who are not able to spend time in the treatment areas off the unit. For most of the patients, however, the "work" day was to be spent in an intellectually and socially stimulating area that was to be called the facility's "treatment mall."

The treatment mall itself was seen as the program's centerpiece, with spaces designed to accommodate the types of social, psychological, behavioral, academic, and vocational skill building that represent the cutting edge of treatment for serious mental illness. In order to allow for new developments in psychiatric treatment, however, the treatment mall was carefully designed to allow for multiple uses.

The current forensic program offers a wide variety of treatment interventions (see Table 1) to assist forensic patients in addressing their mental illness, violent or criminal behavior, and overall quality of life. However, these interventions are currently decentralized with duplication of staff resources and time in multiple locations. CMHIP staff's intent is to offer a comprehensive, quality program with

Mental Illness	Criminal and Dangerous Behavior	Vocational and Education	Quality of Life and Diversion	Health
Integrated psychological therapy for schizophrenia (IPT) Medication education Symptom recognition and management Relapse prevention Suicide prevention	Substance abuse treatment Anger management Chain analysis Index crime group Empathy group Codependency group Cognitive skills training DBT skills training Competency restoration group Women and violence Sex offender treatment group	Computer learning Lab. G.E.D. Building trades Health education Vocational counseling (beginning, intermediate and advanced)	Barber/beauty shop Exercise Gym Liberman: Conversation Making friends Leisure skills Music group Spiritual care Women's Issues	Physical therapy Speech therapy Occupational therapy

Table 1. Examples of therapeutic interventions for high security forensic patients

optimal utilization of resources (staff time and space), to assist patients in achieving the goal of eventual return to the community while minimizing the probability of recidivism.

Hospital leadership was also interested in creating an environment that was extremely safe for staff, patients, volunteers, and visitors, but at the same time there was a desire for the environment to communicate to patients a sense of dignity, autonomy, and privacy. Traditionally, these principles of privacy and safety have appeared mutually exclusive; the best one could do, it was believed, was to compromise between them. As will be discussed below, the design team was able to meet both goals without compromise. The design shown in Figure 2 allows patients both freedom and choice, yet the entire housing unit is easily observable from one staff observation point.

One of the most important stressors in any prison or psychiatric hospital is the virtually constant level of noise. In normal social interaction, people express their strong feelings by raising their voices, but when ambient noise levels are high occupants must raise their voices simply to be heard. One wishing to express strong feeling then must resort to stronger measures, which may include violence. The design team believed that sound management was an important aspect of a safe, violence-free environment.

Finally, the hospital leadership wanted a facility that was as efficient as possible to staff. By improving the efficiency of the building, it was believed that the staff would be able to spend more time teaching and reinforcing the psychosocial skills that would move patients toward a safe return to their communities. The design team anticipated the facility would be operated with a direct care staff-to-patient ratio of at least 1.3:1.

Perimeter Security Design

The first question to ask in designing the perimeter is, "What do we want to protect, and what do we want to protect it from?" For a secure forensic hospital, the most important function of the perimeter is to keep patients from leaving without permission. To accomplish this, the perimeter (in this case, fencing systems) should suggest to patients and staff the futility of even trying to escape, it should detect an escape attempt and notify staff as soon as possible, and it should delay the escapee as much as possible to allow staff the time to respond. In order to enhance staff's confidence in the security of the facility, this fencing system should minimize false alarms, have a high probability of detection, and require minimal maintenance.

Lighting of the perimeter, which is a key component of a facility's ability to monitor the perimeter and prevent escape, created an interesting dilemma for the design team. On one hand, the surrounding neighborhood needed a facility that was obviously secure. On the other hand, none of the neighbors wished to be bothered by high-mast, high-intensity, bright lighting all night that is typical of correctional facilities. Further, in the event of an escape, video surveillance of the perimeter would be essential.

To resolve this dilemma, the design team took advantage of the recent technological advances in video surveillance systems that allow high-resolution imaging at low lighting levels. The entire facility will have site lighting with a uniform

1½-foot-candle output. Perimeter lighting will consist of low-mast, pole-mounted, high-pressure sodium fixtures (matching the neighborhood) with cut-off housings to minimize direct glare and spillover light pollution to adjacent neighborhoods. All site lighting will be connected to the emergency power distribution system to maintain security during a utility power outage.

Because psychiatric patients are occasionally self-destructive or suicidal, CMHIP decided not to use razor-ribbon, barbed wire, or concertina wire in its physical perimeter. To meet the needs of providing a high security perimeter, the design team selected a fencing system that would consist of three separate fences: a drift or nuisance fence, and a site perimeter fencing system that consists of an inner high-security fence and an outer nuisance fence.

The primary role of the drift fence is to control movement of patients outside the secure building perimeter and to separate them from the site perimeter fencing system. This fence is utilized at all outdoor recreation yards and was designed to be virtually unclimbable, incorporating a severe inward arch and unclimbable mesh fabric. Fencing rather than solid walls was preferred at these yards to provide patients with a visual connection to the community.

The design team selected a stun fence system for the inner high-security fence because it provided both a barrier and a detection system, it is unobtrusive in appearance, and it met the criteria of high reliability and low maintenance. The fence is made up of a multi-wire array in a vertical arrangement approximately 14 feet in height. When coming in contact with the fence the intruder or escapee will be shocked with a non-lethal charge. When this occurs, the system will send an alarm to the control station to allow appropriate response by staff.

The primary role of the outer nuisance fence is to maintain a separation between the public, wildlife, etc. and the inner fence. A 12 foot vertical fence with unclimbable mesh fabric was selected for this application. Finally, the outer fence will be colored brown or black in order to reduce the glare that ordinarily calls attention to chain link fencing.

All fencing was designed with straight lines between corners and rectangular enclosures without fencing bends, curves or undulations in grade, which would impair sight lines and provide hidden areas. A continuous concrete mow strip occurs below all perimeter fences, with a concrete barrier wall extending from the mow strip to four feet below grade at the inner high-security fence.

Interior Privacy and Safety

The hospital leadership and design team believe that patients who live in a forensic hospital want and deserve as much dignity and privacy as safety allows. Safety, on the other hand, requires that staff be able to observe as much activity as possible within the hospital. In creating the plans (refer to Figure 3—housing unit plan) for the new CMHIP forensic facility, the design team believed that privacy and safety were not mutually exclusive. The intent was to create an environment where patients would *feel* some sense of privacy and dignity, while staff would simultaneously be able to observe virtually every square inch of interior space, except for the inside of each patient's room.



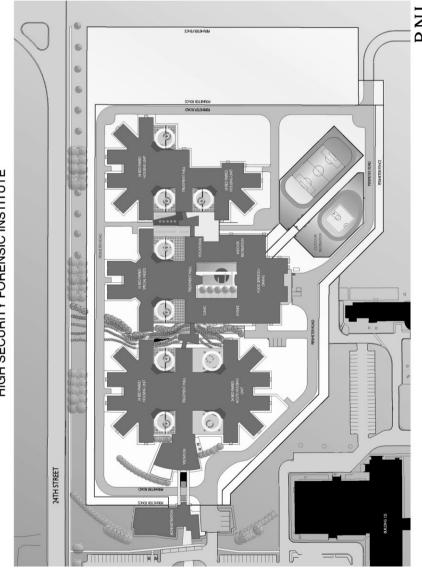


Figure 1. Site plan. Reproduced by permission of RNL Design.

There is of course no "correct" number of beds per housing unit, but housing unit size can impact patient perceptions of both privacy and safety. Dvoskin and Patterson (1998) recommended staffing levels for a 24-bed unit, and experience shows little staff saving when unit size is reduced below that number. In truth, however, the number of beds per unit represents a compromise between staff efficiency and a reasonable therapeutic milieu that is best achieved with relatively smaller social units.

The design team eventually selected 24 beds as the model unit, broken into three eight-bed living wings, as described and illustrated in the housing unit plan in Figure 2.

Single- or Multiple-Occupancy Rooms

In order for such an arrangement to be completely safe, CMHIP leadership made an early decision to create all single-occupancy rooms. This was no easy decision, and there is clearly no right answer to this important question. There are many advantages to multiple-occupancy rooms. First, they allow staff to observe patients in social interaction, which is often a key question in regard to eventual release. Second, many patients prefer to have someone with whom to talk during the hours they are in their rooms. Third, there is some cost savings involved in two-person or four-person rooms, though this is often exaggerated.

On the other hand, not all patients live well with others, especially during periods of rage or acute exacerbation of their psychotic illnesses. Forced co-habitation can cause interpersonal violence in any congregate living setting, from army barracks to college dormitories, and psychiatric hospitals are no exception.

While there has been considerable debate about the rights of patients, especially long-stay psychiatric patients, to enjoy sex (Mossman, Perlin, & Dorfman, 1997), there is virtually no disagreement that hospitals have a duty to protect vulnerable patients, including those who are not able to competently consent to sexual contact, from exploitation or harm.

"Wet" Versus "Dry" Rooms

Initially, staff felt strongly that each patient room should contain an integrated toilet and sink, as is often found in prisons. The advantage of so-called wet rooms is that it makes it easier for staff members to ensure the safety of each individual patient during the night, as no one should ever need to leave their room except in an emergency.

However, wet patient rooms have a number of drawbacks. Most obvious among these is cost, as wet rooms cost approximately \$10,000 more per room than dry rooms in the initial construction. Further, because they are highly reminiscent of prisons, wet rooms would add to the correctional nature of the environment. Looking like a prison, it was believed, would detract from the treatment orientation that the design team was hoping to foster. Because the rooms would necessarily be rather small, wet rooms would place the toilet very close—10 feet, at most—from the head of the person living in the room. Finally, the facility did not *want* the patients to spend long periods in their rooms, something that can be

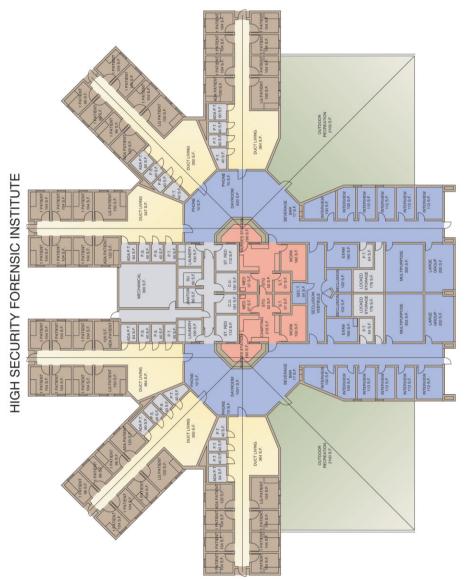
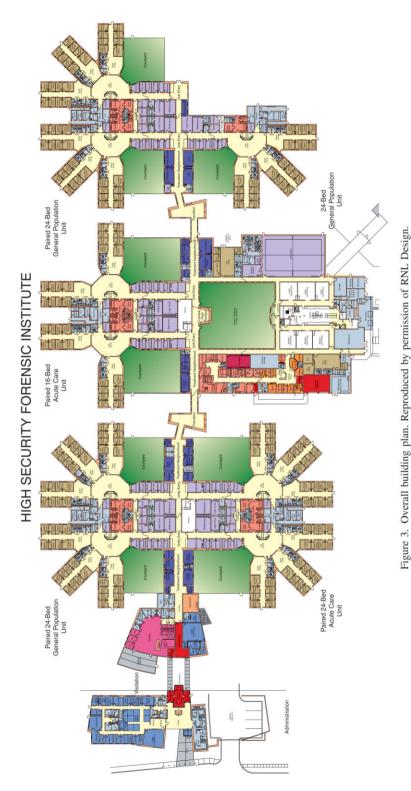


Figure 2. Paired 24-Bed unit plan. Reproduced by permission of RNL Design.



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fostered by providing wet rooms. During one meeting, the design consultant inquired of the staff members present who would want to live in a room with a toilet bowl 10 feet from their face. The response was predictable, and facility staff abandoned the idea of wet rooms except for one handicapped patient room on each unit.

Perhaps most importantly, the design team did not want patients to be confined in their rooms for long periods of time. To the contrary, our wish was to create a much more normalizing environment, one where patients would sleep in their bedrooms, relax in their living rooms, interact with their neighbors in a community center, and "go to work" during the day. As we will explain, at CMHIP, the patient room was to serve as the bedroom, a living room would be shared by eight patients, and the indoor/outdoor day room would serve as a community center, much like those found in apartment complexes. Finally, the bulk of the patients would perform their "work"—learning how to live safely with their mental illness—in the facility's treatment mall, illustrated in the overall facility plan in Figure 3.

Because the design team did not want patients to remain confined in their rooms, the decision was made—except for the small admissions unit—to create dry rooms with two bathrooms and two showers within each eight-person living unit. Unlike many traditional psychiatric hospitals, however, there were to be no "gang" toilets and showers. Experience, in civil and forensic psychiatric hospitals around the country, shows that large multiple-occupancy bathrooms and showers create danger for patients and staff alike. It is of course necessary to allow most patients to have unfettered access to these facilities during the day, and staff often wish to avoid embarrassing patients by observing them during these private activities. As a result, the bathrooms can serve a variety of inappropriate functions, including meeting places for underground economic transactions (such as drugs or cigarettes), voluntary or involuntary sexual liaisons, and fights.

Instead, the design calls for private bathrooms and showers within each eightperson living unit. Because staff could observe the entrance to each room, it would be easy to ensure that only one person would enter at a time, thus protecting patients from physical violence or sexual exploitation, and protecting the hospital from allegations that such acts had occurred.

"Living Rooms"

Studies of physical interpersonal violence on psychiatric wards (see, e.g., Carmel & Hunter, 1989), not surprisingly, reveal that areas of congregation are often the sites of violent encounters. People forced to live together will inevitably develop personality conflicts, jealousies, and feuds. With 24 people living together, the odds of such conflicts are high, and staff may have few options to send the patients involved to "neutral corners."

While there are advantages to an active day room for the entire unit, there is also a need for quiet spaces over which a smaller number of patients could feel some sense of dominion. At New York's Clinton Correctional Facility, for example, the inmates are allowed to maintain private yards, where they can have parties, barbeques, and celebrations. It is a privilege that inmates value above all others, and various cliques within the prison reportedly show a cross-cultural respect for each other's yards that is seldom observed in any other facet of prison life. At Clifton T. Perkins Hospital in

Jessup, Maryland, a new building was recently designed that included, instead of a large dayroom, a number of smaller spaces that could be used for various activities, some quiet and others loud.

However, many staff in psychiatric hospitals also report that the large day room is a positive and important space. It is the social and activity hub of the unit, and allows for comfortable assembly of the patients for community meetings.

CMHIP decided to address this problem by giving each eight-person living space its own small "living room." Policy and procedure will ensure that only the eight patients assigned to this area will be allowed to set foot in this area, unless they invite a guest into their more private living room. Though this area affords residents a sense of ownership and dominion over this space, the sight lines from the staff observation point allow constant monitoring of activity within it.

Indoor/Outdoor Day Rooms

As noted above, many staff and patients reported a desire to have a meeting place that would accommodate all of the patients living on a unit, as long as there were private spaces, so that patients would not be limited to a large and noisy day room.

In addition, one of the most important issues to many forensic patients is the ability to enjoy the outdoors on a consistent basis, but in nearly all forensic psychiatric facilities, any patient wishing to enjoy the outdoors must be escorted by one or more staff members. Especially in understaffed facilities, there are times when no staff members are available to perform this duty. In addition, during periods of inclement weather, staff members may not wish to go outdoors, while patients who are otherwise confined indoors might very much want to enjoy their "yard time"—even in the rain. In most facilities, because the decision to use the yard ultimately falls to staff members, it is a common source of disagreement and bad feeling between patients and staff.

Further, when two patients get into a disagreement, staff members want them to consider walking away from each other, thus resolving disputes without violence. Ironically, however, old-fashioned psychiatric facilities frequently require both parties to remain in the same area—the day room—preventing them from utilizing the behavior of walking away.

The solution to these several apparent dilemmas was to make it possible for patients to go outside whenever they wanted, but to make them observable by staff members that remain indoors. The use of modern, large-pane, unbreakable glazing made it possible to design a clear wall between the outdoor side of the day room and the staff observation post. As a result, the design now provides patients with unfettered access, at virtually any time of their own choosing, to use either the indoor or the outdoor day rooms, in both cases under continuous staff observation to ensure the safety of all concerned.

CONCLUSION

Thanks to the broad based team approach to facility design, the design team has managed to maximize the safety and security in a cost-efficient building while

simultaneously giving patients a sense of autonomy, dignity, and safety within its walls. When construction is completed, this facility will allow staff to spend a higher percentage of their time teaching and reinforcing the skills that will allow patients to return safely to their communities.

DEDICATION

This article is dedicated to the memory of our friend Bob Hawkins, who sadly did not live to see the completion of this new facility.

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