

# Top Design and Furniture Considerations for Patient Safety in Veterans Affairs Mental Health Facilities

Insight into today's design and furniture applications and what to consider when making choices for your facility.



#### INTRODUCTION

Selecting and installing furniture and fixtures and implementing design that meet the needs of a diverse veteran population can be a challenge for Department of Veterans Affairs (VA) design professionals. VA mental health facilities are unique in that they serve geriatric patients, patients with physical disabilities (such as spinal cord injuries or amputations), patients with traumatic brain injury, bariatric patients, and patients with concurrent mental/medical treatment needs.

Healthcare furniture or equipment considered to be appropriate in a general healthcare setting may not only be unnecessary in a VA mental health unit, they may be potentially hazardous for mental health patients, staff or both. These hazards – which include suicide, injuries, violence and hygiene-related issues – are more likely to occur in mental health units located within general VA medical centers due to the mental state of those patients seeking help.

That is why the Department of Veterans Affairs recognizes the crucial role that mental health facility design plays in patient safety, welfare and recovery outcomes and how design can continue to help its ongoing efforts to transform its mental healthcare delivery system.



In their 2010 Mental Health Facilities Design Guide, the VA describes a new paradigm for mental health design that should be incorporated in all new construction and major renovation projects of the Veterans Health Administration. The 317-page VA guide identifies core treatment principles, operational recommendations and design recommendations for each of the major mental health treatment settings; inpatient, residential and outpatient care facilities.

Taking a focused look at the furniture and fixtures used in patient-occupied areas (or "on-stage" areas as they are referred to in the VA guide) can improve awareness of both common and latent patient safety hazards, and provide cost-effective solutions for reducing risk while providing a therapeutic and normalized environment.

In addition to the guide, VA facilities also can look to private-sector research and resources to assist in the creation a safe environment within their walls. For example, The Joint Commission – a not-for-profit organization that certifies healthcare facilities and programs throughout the United States – reported in its 2012 National Patient Safety Goals that hygiene and suicide are two areas of primary focus that are directly linked to the physical environment of behavioral health care facilities.

To provide a comprehensive resource that draws information from multiple leading sources, this document will outline the top risks, challenges and considerations that VA professionals face in regard to the furniture, fixtures and the design they choose for their facilities.

#### THE RISKS IN BEHAVIORAL HEALTHCARE FACILITIES

According to the Joint Commission, the physical environment is one of the top 5 factors contributing to patient harm in in-patient mental health facilities. Measures to reduce patient suicides, such as 15-minute checks, aren't reliable enough, according to James M. Hunt, AIA, NCARB, one of the country's foremost authorities on the design of behavioral health facilities.

Hunt cites information from the American Psychological Association that reports in 2003 there were 1,500 suicides at in-patient facilities. A third of those, approximately 500, were patients on 15-minute checks. Backed by more recent data from the Joint Commission, Hunt points out that even as patient assessment measures advance, in-patient suicides actually increased from 2010 to 2011.

In a 2012 report by the director of the VA National Center for Patient Safety, statistics show that the most common method of suicide attempts among an inpatient population is hanging. Of the incidents cited, the vast number occurred in patient rooms – most frequently involving a door or door handle, bed or bed rail, shower, or wardrobe/locker. Hunt contends this indicates the need for a more comprehensive

approach that includes a patient-centered design model specifically for mental health facilities that more fully addresses the spectrum of issues relevant to patient safety and suicide risk.

The issues of hygiene and biological hazards call for additional scrutiny with regard to the Furniture, Fixtures & Equipment (FF&E) that patients come in contact with on a daily basis. Typical infection control measures in general healthcare settings may not adequately address the conditions that exist in mental health units.



Very often, mental health patients are encouraged to circulate throughout various areas of a facility, such as dining halls, group therapy rooms, or lounge areas where they come in contact with more furnishings and surfaces than would a general healthcare patient that is more room-bound or sedentary. There is also more interaction between patients in a mental health treatment facility.

FF&E choices in mental health environment also need to be evaluated as to how furnishings could be used to conceal contraband, or if patients could possibly weaponize furniture through tampering. These risks further point out the significant differences between what is broadly referred to as hospital or health-care furniture, and the necessarily more specific attributes that are required of behavioral healthcare furnishings.

Such potential hazards with some FF&E are difficult to foresee, especially for practitioners and non-practitioners who are relatively new to the mental health treatment discipline, or to a particular patient

community. That is true whether the risk has to do with suicide and other acts of violence, or is more related to health and hygiene. Yet the consequences of those selections can result in major disruptions of services, expensive remediation measures, injury, illness, or loss of life. That is why architects, specifiers, interior designers, purchasing agents, nurses and risk/safety managers should be aware of current best practices and seek expert advice in order to make informed, conscious decisions.

#### **DESIGN CONSIDERATIONS FOR VA FACILITIES**

The VA's 2010 Mental Health Facilities Design Guide is a vast and thorough document that spans more than 300 pages. Its content covers operational and design planning, information on codes and standards, recommendations on appropriate products, diagrams that illustrate proper layout of facilities and more.

The following are the seven considerations detailed in the "General Trends in Mental Health Design" section of the guide. The information included here paraphrases or quotes directly from the guide.

"...interior and exterior features of mental health facilities are increasingly home-like in appearance and feel. Inpatient and residential facilities, where feasible, are single story or village-like, with multiple exterior courtyards bringing in more natural light and views of nature."

## Bring the Services to the Patients and Maximize Therapeutic Opportunities

To be consistent with the desire to treat patients in a non-restrictive environments that shortens lengths of stay, the guide recommends that in order to "maximize treatment services, patient engagement, and interdisciplinary care processes in an inpatient setting, there should be adequate treatment, therapy, and staff space on the inpatient unit, thereby minimizing movement and separation of the patient and service provider."

#### **Create Non-Institutional Treatment Environment**

To create a therapeutic environment that helps with recovery and reduces institutional stigmas, "interior and exterior features of mental health facilities are increasingly home-like in appearance and feel. Inpatient and residential facilities, where feasible, are single story or village-like, with multiple exterior courtyards bringing in more natural light and views of nature."

#### **Private Patient Rooms and Bathrooms**

There are many private behavioral health care facilities that are moving toward single occupancy rooms. As such, "an inpatient facility with all private patient rooms allows more patient assignment flexibility, enhances patient privacy, and reduces disruptions and incidents related to a shared patient bedroom. Single occupancy patient rooms have the benefit of being more private and having less noise, which may be agitating to some patients and can disturb sleep."

#### **Flexible Census Units**

Flex rooms is the concept of having patient rooms between two units. When there is a change in census, patient rooms can be given over to the other unit, "Therefore, the facility is not locked into a 10 or 12 bed unit concept, but can be eight or even 14 without modification to the plan." The guide also says that "flex rooms are useful in a VA inpatient unit as they house a range of patient types. The flex wing may be used to house women or frail patients to separate them from younger, male patients."



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## **Mall Treatment and Neighborhood Concepts**

"To reinforce the goal of normalizing a patient's experience, 'treatment malls' are being developed in some mental health facilities as a part of the daily programming routine for patients," and help promote "independence, life skills building, and appropriate behavior modeling."

Specifically the guide says these areas provide natural lighting, are wider than normal corridors and provide access to outside courtyards.

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# On Stage and Off Stage Design

This is the concept of separating patient pathways from other parts of the facility such as food service and cleaning supply storage rooms.

This helps in the reduction of noises and distractions in areas where patients spend time.

# **Use of Technology**

According to the guide, technology has the ability to enhance security, communications and the care that is provided.

Security enhancements can include "door control, inventory control, and facility monitoring. Communication enhancements include: access to continuously updated patient treatment documentation by all appropriate members of a patient's interdisciplinary care team." The guide also recommends that all facilities should have audio and video conferencing tools and appropriate band-width.

Lastly, the guide states that computer access is an important part of "recovery and rehabilitation and should be incorporated into the design of inpatient, residential, and appropriate outpatient (e.g., PRRC) mental health facilities."

#### **FURNITURE USAGE IN VA ENVIRONMENTS**

In order to shed light on potential hazards pertaining to FF&E, and to offer various options, James M. Hunt and David M. Sine have authored a practical manual entitled, the Design Guide for the Built Environment of Behavioral Health Facilities.

The Guide serves as a "products and practices" resource for behavioral healthcare design professionals, healthcare practitioners as well as non-practitioners so that they can identify and address environmental risks to patient safety.

It is published by the National Association of Psychiatric Health Systems and is available for free download.

With the Guide as a resource for facility design and the procurement of FF&E, Hunt advises that the person or office responsible for a facility's physical environment devote ample consideration to the following five dictates for selecting behavioral healthcare furnishings.

Look to manufacturers whose furnishings have a verifiable history in similar mental health settings, and assess if the company demonstrates a long-term commitment to serving the needs of those facilities and populations.

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# Select furniture according to each particular facility

The risks and conditions present in each facility deride the practice of rubber-stamping a given product list as a one-size-fits-all solution. The patient population, the patient care staff, as well as the type of

institution and building design make a difference. What is manageable in one setting may not be in another. Visitation practices and settings may make the exchange of contraband more prevalent in a given institution, so tables and chairs in lounge or visitation rooms would need to be extremely tamper-resistant and without seams/gaps.

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# Examine actual furniture pieces to assess durability & performance in a given location

A catalog image or written description can't convey a product's construction quality or durability. Even with familiar and trusted products, the manufacturing process or material attributes may change over time resulting in performance differences.

Examine complete, full-size samples to determine if they would likely stand-up to rough use. Consider if the proposed table or chair were to be picked up and thrown, would pieces break off accidently, or could pieces be intentionally broken off creating anchor points or weapons? Determine how much effort or how long it would take for someone to defeat a particular safety feature/measure. If mechanized bed-lift systems may be used confirm that the products are compatible and constructed for that purpose. Consider if an item were damaged, could it be easily repaired or reupholstered and still maintain all necessary attributes? Choose upholstered or non-upholstered options based on the needs of the facility.

# Evaluate actual furniture pieces to assess injury risks

Even if a product is highly durable it can still carry potential risks for injury in a given setting. This is the case with some adjustable metal-framed hospital beds where patients could wedge an appendage between moving parts. Patients on mental health units may habitually work at a fixture or furniture part that could come loose and be ingested, leave a sharp edge, or allow the concealment of harmful contraband.

With concerns regarding flammability, confirm that the products are certified to pass State of California, "Technical Bulletin No.133", and "Flammability Test Procedure for Seating Furniture for Use in Public Occupancies". (Local fire codes and other regulations may also apply.) Determine if furnishings can or should be securely anchored to the walls or floor, be ganged together or ballasted to deter lifting/throwing. Question if a cabinet or other heavy object could topple over and hurt someone or if a patient could climb on top of it to be able to reach something or to jump down on other people. In the Guide, Hunt recommends that patient room furniture be anchored in place with tamper-resistant hardware.

# Consider the cleaning and maintenance requirements and practices

The cleanability and maintainability of mental health furniture affects patient health and safety with regard to hazards such as contamination from bodily fluids, the spread of air-born infections, and harboring of pests such as bed bugs. The makeup of the maintenance staff and the cleaning practices at a given facility also factor into the proper selection of materials and surfaces.

Non-absorbent materials that won't harbor bacteria provide the best protection against germs and diseases. For upholstered furniture, many new high tech fabrics are resistant to stains, liquids, and bacteria, but the construction techniques need to be optimal.

Consider if cushions can be easily re-covered or replaced. How quickly, how often, and with what products surfaces and materials are cleaned can affect long-term performance

#### CONCLUSION

Making the right decisions about furnishings and fixtures to use in a VA mental health facility can have a great impact on patient health and safety. However, those carefully considered choices can be undermined if the pieces themselves don't last, or the products don't offer the flexibility to contend with future renovations or population changes.

Quality products that last and maintain a like-new appearance save the time and effort it takes to repeat the selection process over and over because of the need for replacements. Durability, as well as being able to mix-and-match or re-configure groupings can extend replacement cycles, providing greater continuity of standards and saving money.

The information contained in this paper was developed from the VA's 2010 Mental Health Facilities Design Guide and an interview with James M. Hunt, AIA, President of Behavioral Health Facility Consulting in Topeka, Kansas.

Mr. Hunt is a practicing architect and facility management professional with over 40 years of experience in healthcare projects. With his unique expertise, he assists psychiatric hospitals and behavioral health facilities throughout the U.S. Canada improve patient and staff safety, and consults with hospitals and architects on the design, building and remodeling of facilities.

In addition to co-authoring the Design Guide for the Built Environment of Behavioral Health Facilities, he regularly publishes articles and speaks at major conferences.

Refer to the Guide, as well as the information provided here, for help in planning patient-area furnishings and sourcing products for use in behavioral health environments. To download the latest version of the Hunt and Sine Guide, visit the Behavioral Health Facility Consulting website.

#### **RESOURCES**

# Index of Norix products featured in the Design Guide for the Built Environment of Behavioral Health Facilities

Hilltop Outdoor Furniture – pages 14, 90 DuraVision Quarter Dome Mirror – pages 20, 70 Forte Series Chair, shown with optional upholstered cushion – pages 26, 74 Integra Series Chair, armless – pages 28, 73 UltraMax Chair, armless – pages 28, 33, 73 Safehouse Series Patient Room Furniture – pages 33, 77 Attenda Sleigh Bed – pages 34, 77 Attenda Floor Mount Bed - page 34 Attenda Bed Riser – pages 34, 77 Attenda Four Shelf Storage – pages 35, 78 Ironman Recessed Shelf – pages 41, 45, 67 Suicide Resistant Shelf – pages 41, 45, 67 Ironman Soap Dish - pages 42, 68 Toilet Paper Holder – pages 43, 69 Ironman ADA Shower Seat – pages 45, 68 Sierra Series mixed materials seating – page 74 Comfort Shield Mattress - page 76

#### Other resources:

VA 2010 Mental Health Facilities Design Guide: http://www.cfm.va.gov/til/dGuide/dgMH.pdf

Design Guide for the Built Environment of Behavioral Health Facilities: https://www.naphs.org/ quality/design-guide-for-the-built-environment

VA National Center for Patient Safety report, Inpatient Suicide in VA Hospitals: http://usmedicine.com/pagelmages/MillsPresentationonInpatientSuicideVADOC.pdf

Planning & Design of Behavioral Healthcare Facilities by Tara Hill, ASID, IIDA, RID: http://www.norix.com/pdf-downloads/whitepaper-behhc.pdf











