

Interior Design Strategies for Mental Health and Emotional Healing in Healthcare Facilities

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Course: B.Des (Interior Design)

Abstract

Healthcare interiors are not neutral containers for clinical work. Their light, sound, privacy, materiality, spatial organisation and social cues can shape how people experience uncertainty, vulnerability, safety and belonging while receiving care. This paper critically examines interior design strategies that may support mental health and emotional healing in healthcare facilities, with particular attention to psychiatric and behavioural-health settings while drawing cautiously on wider healthcare evidence. It synthesises published systematic reviews, conceptual scholarship and selected foundational studies concerning therapeutic environments, sensory conditions, privacy and control, social interaction, nature and the balance between safety and dignity. Rather than treating design as a cure, the paper frames the interior environment as one component of a wider care system that can support or obstruct therapeutic relationships and daily coping. The synthesis suggests that the most defensible approach is not a single “healing style” or colour palette, but a coherent set of person-centred choices: legible layouts; meaningful privacy and choice; balanced daylight and controllable lighting; acoustic comfort; non-institutional but durable materials; opportunities for solitude and connection; access to nature and outdoor space; culturally responsive artwork; and safety measures integrated with dignity. Evidence remains uneven, often context-specific, and frequently stronger for perceived experience than for causal clinical outcomes. The paper proposes an evidence-to-design framework and a post-occupancy evaluation agenda. It is a literature-based synthesis, not a new systematic review, clinical trial or empirical study.

Keywords: healthcare interior design; mental health; emotional healing; trauma-informed design; sensory design; person-centred care; therapeutic environments; evidence-based design.

1. Introduction

A healthcare interior is often encountered when a person has less control than usual. A patient may be frightened by a diagnosis, exhausted by treatment, overwhelmed by unfamiliar procedures or uncertain about what will happen next. A family member may be trying to remain composed in a waiting room; a nurse may be making complex decisions under time pressure. In these circumstances, the built environment becomes part of the emotional context of care: it can communicate welcome or exclusion, calm or confusion, autonomy or surveillance.

The design question is therefore more demanding than whether a room looks attractive. It asks whether a place helps people understand where they are, find support, protect privacy, regulate sensory input and maintain dignity. In mental and behavioural-health settings, these issues are especially visible because the environment may be used continuously and because safety procedures can conflict with the desire for a familiar, non-coercive atmosphere. A systematic review of adult mental-health inpatient facilities identified privacy and personal control, daylight, flexible communal areas, spaces for reflection, homelike character, artwork and staff-station design among recurring themes, while noting the need for stronger evidence (Rodríguez-Labajos et al., 2024).



This paper argues that emotional healing is best supported when interior design is treated as a relational and operational resource rather than a decorative layer. Design can create conditions that make rest, orientation, connection and therapeutic engagement easier; it cannot independently resolve trauma, illness, discrimination or gaps in clinical care. This distinction is ethically important: claiming that a palette or plant “heals” can overstate evidence and shift responsibility away from the wider care system.

2. Problem, aim and research questions

2.1 Problem statement

Healthcare projects face competing priorities: infection prevention, observation, durability, staff workflow, capital cost, privacy, accessibility and a welcoming atmosphere. If decisions focus primarily on operational efficiency or risk containment, interiors can become noisy, confusing, impersonal or unnecessarily restrictive. Conversely, a visually domestic environment may fail if it is inaccessible, difficult to clean, poorly supervised where observation is essential, or unsafe for particular service users. Reviews describe the need to balance therapeutic qualities with clinical and safety requirements rather than assume that one design solution works for every setting (Bodryzlova et al., 2024; Rodríguez-Labajos et al., 2024).

2.2 Aim and objectives

Aim: to critically synthesise evidence-informed interior design strategies that may support emotional well-being, perceived safety, agency, social connection and therapeutic experience in healthcare facilities, especially mental and behavioural-health environments.

The objectives are to:

- Examine how sensory and spatial conditions shape experiences of healthcare interiors.
- Identify strategies associated with emotional comfort, privacy, orientation, connection and perceived safety.
- Analyse tensions between dignity, therapeutic atmosphere, infection control, observation and risk management.
- Develop a practical framework linking design decisions to plausible mechanisms and measurable post-occupancy outcomes.
- Identify evidence gaps and propose a participatory, context-sensitive research agenda.

2.3 Research questions

- Which interior characteristics are most consistently associated with positive emotional experience in healthcare settings?
- Through what plausible mechanisms might spatial control, sensory comfort, nature and social settings support therapeutic experience?
- How can designers reconcile safety and operational requirements with privacy, autonomy and a non-institutional atmosphere?
- What should be measured after occupation to determine whether a design works for patients, families and staff?

3. Theoretical foundations

3.1 Environment as an active context of care

Evidence-based design connects decisions to credible research and evaluates outcomes after occupation. The physical environment may influence experience through direct sensory exposure, cognitive demands, perceived control, social interaction and symbolic meaning. Noise and glare are direct exposures, finding a room is a cognitive task, adjusting a blind can communicate agency, a private conversation room can make disclosure easier, and a welcoming entrance may signal that people are respected. Dijkstra, Pieterse and Pruyn's systematic review describes psychologically mediated pathways through which environmental stimuli may contribute to healing environments, while illustrating the difficulty of attributing outcomes to one isolated feature (Dijkstra et al., 2006).

3.2 Stress recovery and attention

Nature views, daylight and restorative settings are often discussed through stress-recovery and attention-restoration theories. These provide plausible explanations for why some environments feel less demanding than others. Ulrich's influential study reported an association between window views and recovery indicators among surgical patients (Ulrich,

1984); it remains historically important but does not prove that every nature view produces the same clinical effect in every population. Recent reviews continue to investigate nature-integrated strategies while noting variation in interventions, study design and outcome measures.

3.3 Person-centred and trauma-informed design

Person-centred design recognises that patients are not interchangeable users. Sensory preferences, mobility, culture, previous experiences of institutions and tolerance for social contact differ. Trauma-informed design asks whether spaces support emotional and physical safety, transparency, choice, collaboration and empowerment. These principles are prompts for co-design and ongoing reflection, not a universal checklist. A design that reassures one person may feel exposing or controlling to another.

3.4 Recovery-oriented environments

Recovery may involve more than symptom reduction: hope, identity, participation, meaningful activity, connection and the ability to make choices matter too. Interiors can support these aims through varied privacy, flexible conversation areas, everyday activities and settings that do not reduce people to a diagnosis. Liddicoat and colleagues argue for built-environment principles that connect service-user experience with individual, interpersonal and community levels of mental-health care (Liddicoat et al., 2020). A calm-looking room alone is not evidence of a genuinely supportive environment.

4. Method and review boundaries

This paper uses a critical narrative synthesis. Core sources were selected for relevance to mental-health inpatient environments, healthcare environmental quality, environmental stimuli and recovery-oriented service design. Priority was given to systematic reviews and peer-reviewed scholarship, supplemented by foundational research and World Health Organization guidance on safe and sustainable healthcare facilities. The review is thematic rather than statistical; no pooled effect size is calculated.

Three levels of confidence are distinguished. **Recurring design considerations** are features identified across reviews, such as privacy, daylight, social spaces and staff support areas. **Plausible mechanisms** explain how a feature may influence experience, such as reducing sensory load or increasing perceived control. **Clinical outcome claims** require stronger causal evidence and should not be inferred from positive user comments alone. Many environmental studies are observational, use context-specific samples, or evaluate several changes at once.

The search was not exhaustive and the paper is not a formal systematic review. Findings from adult psychiatric inpatient settings cannot automatically be transferred to emergency departments, paediatric wards, oncology units, outpatient clinics or culturally distinct healthcare systems. Conclusions are design hypotheses and practice recommendations proportionate to the evidence, not clinical prescription.

5. Critical synthesis of design strategies

5.1 Privacy, personal territory and control

Privacy is not merely a door. It includes the ability to decide when to be seen, heard, approached or left alone. In shared rooms and communal areas, seating orientation, chair spacing, acoustic separation and access to retreat spaces can influence whether people feel exposed. Practical strategies include varied seating, visual screening where clinically appropriate, clear bedroom-entry protocols, private family-conversation spaces and understandable controls for blinds or lighting. These must be balanced with clinical observation and safety requirements. The goal is not to remove necessary observation, but to make it proportionate, transparent and respectful. Early involvement of service users and clinical teams can reveal conflicts that a plan drawing alone will not.

5.2 Daylight, lighting and circadian comfort

Daylight can support orientation to time, visual connection to the outside and a less enclosed feeling. Yet daylight is not automatically comfortable: glare, overheating, reflections and lack of shade may cause distress. Artificial lighting should be layered and adjustable where feasible, with adequate task lighting for clinical work and softer options for rest. Night lighting should support safe movement without unnecessarily disrupting sleep. Teams should assess daylight at different times and seasons, and evaluate lighting through user feedback rather than prescribe one colour temperature for everyone.

5.3 Acoustic comfort and sensory regulation

Alarms, conversations, carts, televisions, hard finishes and reverberant corridors can create a constant background of alertness. Acoustic design may use absorption, quieter equipment, zoning of active and quiet functions, door seals and spaces for confidential conversation. In mental-health settings, the meaning of sound matters as well as its measured level: an unpredictable alarm may be more distressing than a steady, familiar sound. A sensory-supportive environment should offer options. Some people prefer quiet and low stimulation; others may find a dim, silent room unsettling. A sensory room is useful only when safely designed, clinically integrated and never used as punishment or coercion.

5.4 Colour, materiality and domestic character

Colour can establish visual hierarchy, support wayfinding and influence the emotional tone of a space, but claims such as “blue always calms” or “green cures anxiety” are not scientifically defensible. Perception depends on saturation, illumination, contrast, culture and personal history. A robust approach uses colour purposefully: legible contrasts, non-glare finishes, coherent palettes and opportunities for individual expression. Wood-like finishes, textiles, comfortable furniture and familiar artwork may soften an institutional impression, but materials must still meet infection-control, cleaning, fire, durability and relevant safety requirements. A space can look homelike yet remain controlling if people have no privacy or choice.

5.5 Nature and outdoor access

Nature may be present as a view, courtyard, garden, indoor planting, natural materials, artwork or carefully selected nature imagery. A window view is not equivalent to physical access to a garden; both should be considered separately. Outdoor spaces need accessible routes, seating, shade, privacy, weather protection and maintenance. Planting also requires assessment of allergies, toxicity, maintenance and setting-specific risks. Nature should be understood as an opportunity for sensory variation, orientation, activity and choice—not as a substitute for treatment. The evidence is promising but interventions vary, so causal claims should remain cautious.

5.6 Wayfinding, legibility and cognitive load

A person who is anxious, in pain, sleep-deprived or unfamiliar with a hospital may find navigation difficult. Clear sightlines, consistent signage, distinctive but non-stigmatising landmarks, visible destinations and reduced visual clutter can lessen uncertainty. Wayfinding is not simply a sign package added after construction: it depends on the plan, sequence of spaces, lighting and staff placement. Signs should use plain language, accessible typography, multilingual support where needed and symbols tested with users. Excessive security cues can also shape the perceived character of a place; necessary restrictions should be integrated thoughtfully.

5.7 Social connection, solitude and meaningful activity

Connection can support emotional healing, but forced sociability can be exhausting or unsafe. A therapeutic interior offers a spectrum: individual retreat, quiet side-by-side activity, small-group conversation, family visits and shared everyday tasks. Flexible furniture groupings, smaller communal areas, private conversation booths and activity rooms can make participation less formal. People should be able to join, observe or leave without humiliation. Furniture alone cannot create trust; social experience also depends on staffing, routines and service culture. A 2019 systematic review of psychiatric facility design identified the importance of balancing private and shared areas, homelike scale and opportunities for positive interaction.



Figure 1: Sensory-support lounge concept with soft seating, layered light and low visual clutter. Source: AI-generated for this paper using OpenAI image generation (2026); not a clinical protocol or proof of treatment effectiveness.

5.8 Safety, visibility and dignity

Mental-health facilities must address foreseeable risks, but safety should not be equated with maximum restriction. A secure environment can still feel respectful through discreetly integrated safety features, familiar materials, clear routes, warm lighting and non-threatening signage. Appropriate solutions depend on patient group, acuity, staffing, legal duties and the clinical model. Open nursing stations may improve approachability or visibility in some contexts, but may also create noise, interruptions and confidentiality problems. Reviews of staff experience identify both benefits and challenges in station design, demonstrating why no single typology should be adopted without local evaluation.

5.9 Staff well-being as part of patient experience

Staff are part of the therapeutic environment. Poor acoustics, lack of respite, insufficient storage, awkward circulation and constant visual exposure can increase fatigue and make compassionate communication harder to sustain. Staff need functional work zones, confidential documentation areas, accessible supplies, safe sight lines and spaces for brief recovery from emotionally demanding work. Staff rooms are part of the infrastructure that supports reliable care, but staff needs must be balanced with patient dignity and confidentiality.

5.10 Artwork, identity and cultural belonging

Artwork can make a place feel recognisable rather than anonymous, but its meaning is personal. Images that seem peaceful to one person may carry difficult associations for another. Selection should include varied styles, local artists, community narratives and patient participation where possible. Avoiding stereotypes and tokenistic cultural motifs matters as much as representation. In higher-risk environments, materials and fixings should be selected with clinical and safety teams. The aim is not to fill every wall, but to provide meaningful cues that support identity and dignity.

6. Proposed evidence-to-design framework

The following framework translates themes from the literature into a design and evaluation process. It is proposed for this paper and is not a validated clinical instrument. Each design decision should identify the intended experience, plausible mechanism, conditions under which it might fail and outcome to check after occupation. The framework avoids promising that one design feature will directly reduce psychiatric symptoms. It emphasises intermediate outcomes—comfort, privacy, orientation, perceived safety, use patterns and experience—that can be measured more plausibly. Clinical outcomes may be examined where appropriate, but require suitable designs and attention to confounding factors such as staffing, treatment intensity, case mix and service policy.

7. Design implications for healthcare interiors

7.1 Avoid universal prescriptions

There is no universally therapeutic colour, scent, texture, music level or furniture arrangement. Some patients may be sensitive to fragrances; some may find open-plan areas overwhelming; others may feel isolated in small rooms. A flexible range of spaces and controls is more defensible than designing a single emotional tone for the entire facility. Culture, neurodiversity, age, disability and individual preference should shape consultation.

7.2 Integrate safety and maintenance

Furniture, doors, glazing, fixtures and planting should be selected with the relevant clinical risk assessment and applicable standards. The safest solution is not always the one that looks most secure. A coordinated design can integrate robust performance with familiar materials, clear routes, warm lighting and non-threatening signage. Maintenance teams should participate in specification and mock-up reviews: dead plants, broken blinds, damaged upholstery, persistent alarms and cluttered corridors can undermine intended benefits.

7.3 Design for choice within clear boundaries

Choice need not mean unlimited customisation. It may mean choosing a seat near the window or exit, adjusting a blind, selecting a quiet area or deciding whether to join a group. Such small decisions communicate respect. Designers should identify where choice is clinically appropriate and where restrictions are necessary, then make boundaries understandable rather than arbitrary.

7.4 Start with lived experience, not the mood board

A design brief should include interviews, workshops, walkthroughs or other accessible consultation with people who use the service, including individuals with lived experience of mental distress. Participation should be voluntary, supported and ethically managed. People should not have to disclose personal histories to contribute. Mock-ups allow users to test lighting, seating, signage and privacy arrangements before they become expensive to change.

8. Evaluation, ethics and implementation

8.1 Ethical considerations

Ethical design requires that users are not passive recipients of an expert's aesthetic judgement. Co-design should not become token consultation after key decisions have already been made. Participants should know how feedback will be used, and projects should explain when requests cannot be accommodated. There is also an ethical risk in marketing an interior as “healing” without evidence. The more defensible claim is that design can support conditions associated with comfort, agency, dignity and therapeutic engagement while clinical care and social support remain essential.

8.2 Implementation sequence

- **Discover:** map user journeys, sensory stressors, access barriers, privacy needs and staff workflows.
- **Co-design:** test layouts and choices with patients, families, staff and specialists.
- **Specify:** align materials, lighting, acoustics and safety details with clinical requirements.
- **Prototype:** mock up key rooms, signage and controls where feasible.
- **Evaluate:** collect baseline and post-occupancy data ethically and transparently.
- **Adapt:** improve the environment based on evidence and communicate what changed.

8.3 Post-occupancy evaluation

A post-occupancy evaluation should combine quantitative and qualitative evidence. Measures may include user-reported privacy, perceived control, emotional safety, noise, daylight comfort, wayfinding confidence, access to outdoor space, staff fatigue and satisfaction. Observation can document whether rooms are used as intended; interviews can explain why a space is avoided or valued. Results should be examined carefully across age, disability, language, gender and cultural groups.

Before-and-after evaluation can be useful, but cannot automatically attribute changes to the interior. Staffing, treatment protocols, occupancy, seasonal daylight and patient mix may also change. Stronger evaluations may use comparison sites, repeated measurement and transparent reporting of concurrent service changes. Consent and privacy must be protected, particularly in mental-health settings.

9. Limitations and future research

The literature remains uneven. Many studies are observational, qualitative or based on user perceptions; these methods are valuable for understanding experience but do not always establish causality. Interventions are often bundled: a renovated unit may simultaneously change lighting, furniture, staffing, garden access and care routines. It is therefore difficult to isolate the effect of one feature. Reviews also identify limited evidence on how design affects staff and service users over time.

Future research should prioritise co-produced studies connecting design features to clearly defined mechanisms and outcomes. Multi-site research could test transferability across service

models and cultures. Longitudinal post-occupancy studies should document actual use, staff adaptation and whether benefits endure after the novelty of a new building fades. Research should include people often underrepresented in design consultation, including those with sensory sensitivities, mobility impairments, limited literacy or language-access needs.

Further work is needed on trade-offs: privacy versus observation, quiet versus rapid response, domesticity versus infection control, outdoor access versus environmental risk, and open staff stations versus confidentiality. Rather than searching for one ideal design, the field should develop adaptable principles, transparent evaluation methods and context-specific guidance.

10. Conclusion

Interior design cannot replace skilled clinicians, compassionate relationships, adequate staffing or equitable access to care. Yet the environment is not incidental. It shapes ordinary moments through which care is experienced: finding a room, waiting for news, resting after a difficult conversation, asking for help, speaking privately with family or choosing to sit near others without being forced to participate.

The most defensible strategies are not limited to colour, decoration or fashionable style. They involve a coordinated commitment to privacy and control, sensory comfort, legible navigation, nature, meaningful social choice, cultural identity, staff well-being and proportionate safety. Evidence is promising but not uniform, and claims should remain aligned with research quality. Therapeutic design should be treated as a testable, participatory and ethically accountable part of healthcare—not as a visual promise of recovery, but as an environment that gives people a better chance to feel respected, oriented and supported while care takes place.

11. References

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