

EMBARKING ON WELL-NESS
Behavioral health & Rehabilitation journey

A THESIS

Submitted in partial fulfillment of the requirements for the award of
Bachelor of Architecture degree

By

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SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY (DEEMED TO BE UNIVERSITY)
Accredited with Grade "A++" by NAAC | 12B Status by UGC | Approved by AICTE
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BONAFIDE CERTIFICATE

This is to certify that Thesis Report is the bonafide work of **Malarvizhi S (39210043)** who carried out the Thesis entitled "**Embarking on well-ness: Behavioral health & Rehabilitation journey**" under our supervision from December 2023 to May 2024.

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THESIS SYNOPSIS

The current approach to community mental health care fails to provide adequate therapeutic environments for many individuals with mental illness to achieve full recovery. This deficiency leads to a harmful cycle where patients enter the hospital, stabilize in acute care settings, and are quickly discharged back into the larger community, where resources and support are limited. Consequently, patients feel overwhelmed, experience setbacks, and often return to the emergency department. Thus, there is a pressing need for innovative privacy settings that offer a middle ground between institutionalization and independence, providing both sanctuary and access to therapeutic services, as well as connections to the outside world.

Presently, individuals seeking mental health care, whether voluntarily or through legal proceedings, find themselves isolated from society in institutional environments that offer immediate but often temporary relief. These settings, focused on acute treatment, frequently fail to address the long-term therapeutic needs of patients and lack a sense of safety. Upon discharge, patients are thrust back into the world without adequate support or access to necessary services. Group homes and halfway houses, while providing some autonomy, often offer minimal care and inconsistent services.

Unlike the rigid structures of hospitals and group homes, a broader therapeutic community, integrated within the larger community and offering swift access to support and services, can provide a more stable transition for patients moving from institutional isolation to a more integrated form of care that enhances both patient and community interaction.

This thesis aims to explore how architectural design can create environments that strike a balance between supervision, medical treatment, and patient autonomy. It seeks to blend integration into the community with protection from the outside world, tailored to the specific residential and treatment needs of patients transitioning from hospital care to a setting where they are not yet ready for independent living or group homes.

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

With the escalating pressures from personal and external factors, the demand for psychiatric hospitals has intensified, emphasizing the urgent need for enhanced mental health infrastructure to effectively navigate contemporary challenges.

Psychiatric care plays a crucial role in fostering emotional well-being, boosting overall productivity, and enabling individuals to lead fulfilling and balanced lives, positively impacting personal and professional spheres.

The imperative for psychiatric-focused healthcare is supported by pivotal reasons, highlighting its significance in addressing complex mental health needs and tailoring treatments for improved individual well-being and recovery outcomes. In India, where 60 million people suffer from some form of mental illness and 0.9% of the population is at high risk of suicide, the stark reality is evident. However, with only 0.3 psychiatrists per 1 lakh people, the need for expanded mental health services is urgent.

A study has shown a positive but modest correlation between depressive disorders and suicide death rates at the state level, with higher rates observed in southern states compared to northern ones. Reports from 2017 revealed that one in seven individuals in India faced mental disorders, with their contribution to the overall disease burden nearly doubling from 1990 to 2017. Particularly in southern states, depression, anxiety, schizophrenia, and bipolar disorder posed the highest burden, highlighting the impact of modernization on mental health.

Given these pressing issues, there is a clear call for rebuilding and revamping existing infrastructure in these hospitals, with a proposal to rename Mental Hospitals to Institutes of Mental Health to reflect a more progressive approach to mental health care.

1.2 NEED OF THE PROJECT

Millions of Indians grappling with mental illness face a critical shortage of psychiatrists, highlighting them to tackle the escalating mental health crisis. Regional disparities in access to care and increasing suicide rates underscore the imperative for innovative approaches in psychiatric care and rehabilitation facility design. Comprehensive support and improved outcomes are essential for addressing the diverse mental health needs of individuals nationwide.

1.3 AIM

The aim of this thesis is to design infrastructure that goes beyond treatment, emphasizing a therapeutic environment that centers on patient well-being, safety, while simultaneously endeavoring to reintegrate the infrastructure into society.

1.4 OBJECTIVE

(a) To study the evolution of mental hospital infrastructure in India alongside the enactment of the Mental Health Act, 2017.

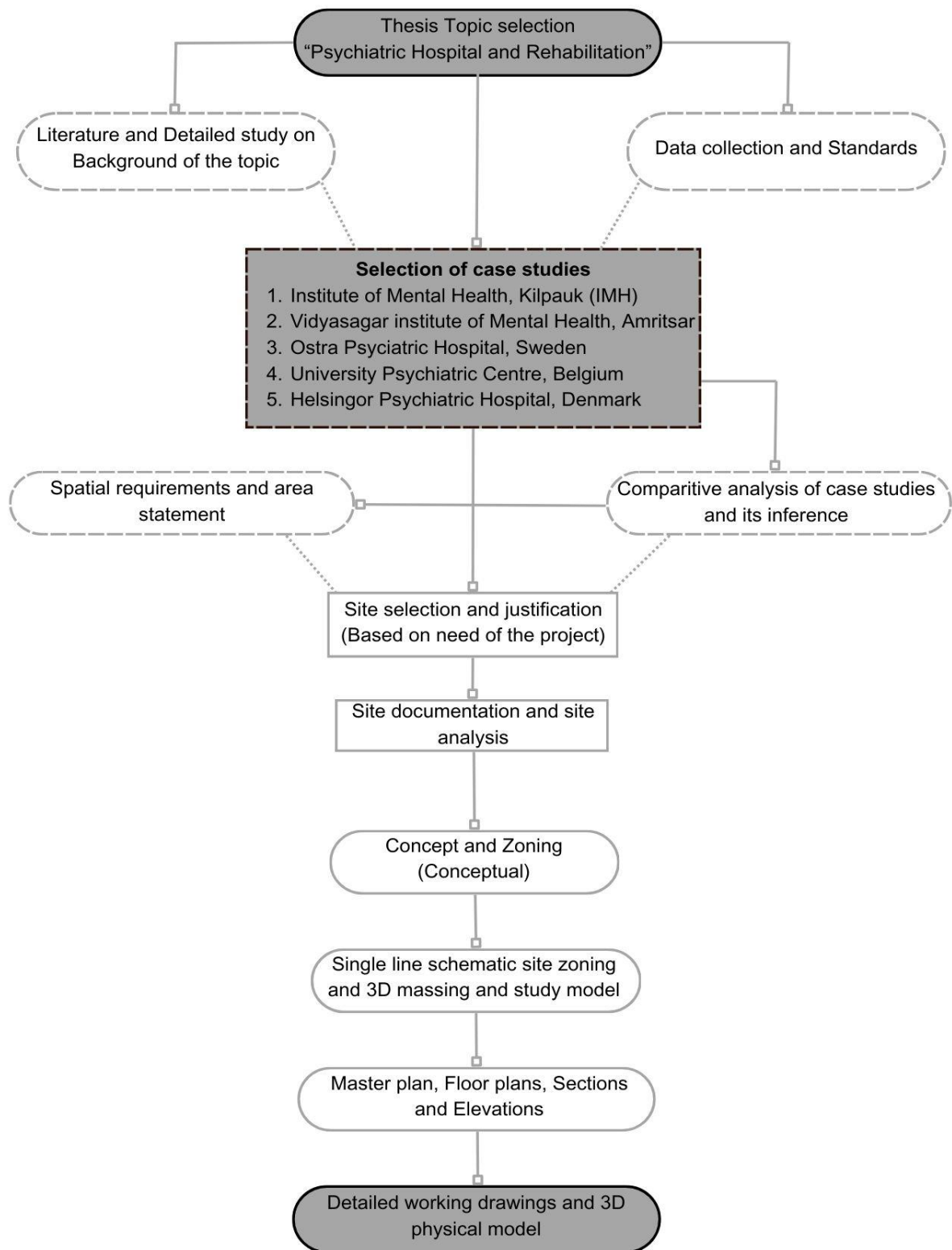
(b) To explore the current operations of mental health institutions and extract user perspectives.

(c) To examine contemporary psychiatry and psychiatric treatment methods, and correlate them with architectural treatment facilities.

(d) To create infrastructure conducive to a therapeutic environment and community engagement, facilitating patient integration into society.

1.5 METHODOLOGY

- This thesis heavily relies on data collected from various sources such as websites, newspaper, magazines, research papers, and related studies.
- The study presents ideas for an architectural environment fostering user optimism. It meticulously analyses therapeutic elements impact on design.
- The research methodology is qualitative, where conclusions are drawn based on interpretations.
- The study concludes with a collection of ideas and plans designed to shape an architectural environment that inspires optimism among its users.

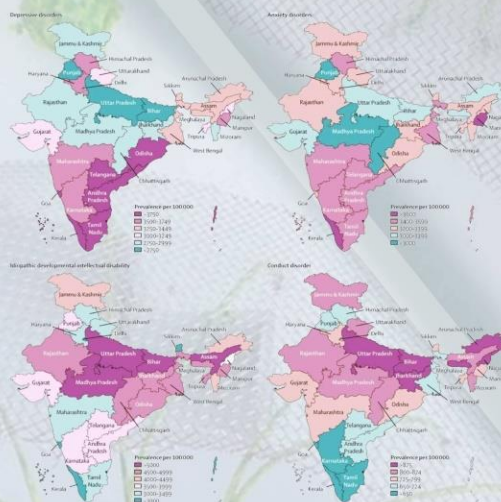




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INTRODUCTION 01

Understanding Indian Mental Health Condition

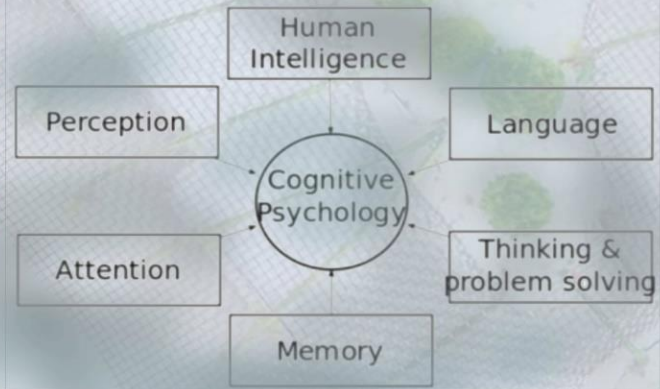


"Amidst mounting pressures, the call for improved psychiatric care intensifies, vital for navigating contemporary challenges and fostering emotional well-being. With 60 million affected by mental illness in India, urgent expansion of mental health services is imperative, supported by data revealing the escalating burden of disorders, particularly in southern states."

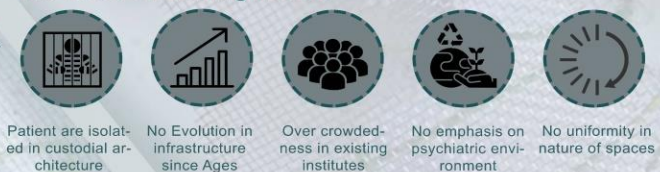
The escalating pressures from personal and external factors, the demand for psychiatric hospitals has intensified, highlighting the imperative for enhanced mental health infrastructure to navigate contemporary challenges effectively. Psychiatric care is essential for fostering emotional well-being, improving overall productivity, and enabling individuals to lead fulfilling and balanced lives, contributing positively to both personal and professional spheres. Pivotal rationale supports opting for psychiatric-focused healthcare, emphasizing its significance in addressing complex mental health needs and tailoring treatments for better individual well-being and recovery outcomes.



"Healing is a journey, not a Destination"
Strength isn't always loud; sometimes it's found in the quiet battles of the mind."

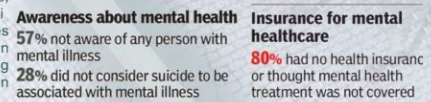


The Need of Reimagination



The current model of community mental health care falls short in providing sufficient therapeutic environments for individuals to achieve full recovery, leading to a harmful cycle of hospitalization, brief stabilization, and inadequate community support. There's a critical need for innovative privacy settings offering a middle ground between institutionalization and independence, ensuring sanctuary, therapeutic services, and connections to the community. Patients often find themselves isolated in institutions focused on acute treatment, lacking long-term care and safety upon discharge.

CAUSE FOR CONCERN



Group homes and halfway houses offer limited autonomy and inconsistent services, failing to meet long-term therapeutic needs. Unlike these rigid structures, a broader therapeutic community integrated within society can facilitate a stable transition, enhancing patient and community interaction. This thesis explores architectural designs aiming to strike a balance between supervision, medical treatment, and patient autonomy, tailored to the residential and treatment needs of those transitioning from hospital care.

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"This thesis draws extensively from diverse sources, including websites, newspapers, magazines, research papers, and studies, to explore architectural designs promoting user optimism. Through qualitative methodology, it analyzes the therapeutic impact of design elements, culminating in a proposal for an inspiring architectural environment aimed fostering optimism."



CHAPTER 2

LITERATURE STUDY

2.1 HISTORY

The historical development of psychiatry revolves around the treatment of mental illness over different eras, aiming to establish scientific, social, and clinical perspectives on this intricate subject. This history can be divided into three main periods. In a strict sense, the history of psychiatry begins with the enlightenment in the 18th century, marking the start of systematic efforts to care for the mentally ill. From the late 19th century onwards, psychiatry evolved into an academic discipline, gaining recognition as a field of study.

During the enlightenment era of the 18th century, there was a notable shift in attitudes towards mental illness. Previously, those with mental health conditions were often marginalized or subjected to harsh treatments. The Enlightenment brought about a more systematic approach to caring for the mentally ill, with the establishment of asylums and efforts to develop treatments based on reason and observation. This period marked the beginning of organized efforts to understand and treat mental illness.

By the late 19th century, psychiatry had progressed into a recognized academic discipline. This era saw advancements in the understanding of mental disorders, with the development of diagnostic criteria and classifications. Influential figures such as Emil Kraepelin contributed to the categorization of mental illnesses, laying the groundwork for modern psychiatric practice. The field expanded to encompass research into the biological, psychological, and social factors influencing mental health, paving the way for more comprehensive and holistic approaches to treatment.

The evolution of psychiatry reflects broader societal changes in attitudes towards mental illness, moving from stigmatization towards a more scientific and compassionate approach. Today, psychiatry continues to evolve, integrating new research findings, therapies, and technologies to improve the understanding and treatment of mental health disorders. The historical backdrop provides valuable insights into the challenges and progress made in the field, highlighting the ongoing efforts to support individuals with mental illness and promote mental well-being.

2.1.1 First Phase (Late 18th century - Mid 19th century)

1700

1720

1740

1745..... First hospital established in Bombay

1760

1780

1784..... The next hospital established in Calcutta both under the direct authority of East India Company.

1787..... Dr. William Dick, a surgeon established a private hospital with institute which was recognized and rented to East India Company

1794..... Surgeon valentine connolly established the first hospital in South India at Kilpauk, Madras, for twenty patient.

1795..... Another lunatic asylum in monghyr, Bihar about 400-500 miles north of calcutta established by the British rulers

1800

1817..... Surgeon Beardsmore had opened a private hospital at Bhowanipore, Calcutta. This hospital housed around 50-60 European patients with clean surroundings and a garden.

1820

1821.....Another lunatic asylum was opened at Patna, Bihar.

1840

2.1.2 Second Phase - Fifth Phase

Second phase (Mid 19th – Late 19th century)

1840

During this period, new asylums were built at Patna, Dacca, Calcutta, Behrampur, Cuttack, Waltair, Trichinpally, Colaba, Pune, Dharwar, Ratnagiri, Hyderabad, Ahmedabad, Jabalpur, Banaras, Agra, Bareilly and Lahore.

1858..... The first lunacy Act (Act no.36) was established

1860

1872..... Colaba was mainly meant for Europeans with over 285 beds and Ahmedabad had 180 beds.

1880

Third phase (1st quarter - 20th century)

1900

1912..... India lunacy Act established led to established to central Lunatic asylum , Behrampur

1918..... The Behrampur asylum closed down to give way to central European hospital, Ranchi

Fourth phase (1920 - 1947)

1920..... Col. Berkely for a change of name of the institutions from 'mental Asylums' to 'mental hospitals'.

1940

1946..... Establishment of the "Bhore Committee" for surveying mental health care centers.

Post 1947..... Not many new centres were established more emphasis was on creating and developing general hospitals psychiatry ward.

1960

1980

2.2 DEVELOPMENT OF MENTAL INSTITUTIONS

2.2.1 Middle ages

In the middle ages, mental illness was seen through a moral lens, believed to result from sin and punished by God or possession by Satan. Monasteries played a role in care, yet many mentally ill stayed with families. Socially, those deemed strange were isolated, some ending up in prisons due to fears of harm to the community. Medieval society struggled with managing mentally unstable individuals, often resorting to isolation in prisons.

2.2.2 Renaissance to the French revolution

Renaissance clinics were bustling centers, combining religious rituals, care, and creative activities. These clinics, resembling small cities, were designed with features like arcades and courtyards integrated into the urban fabric of Florence. They reflect a society's care for its vulnerable members during the renaissance.

2.2.3 Late 18th century (Moral treatment)

In the late 18th century, the concept of “moral treatment” linked architecture with mental health care. This period saw the emergence of asylums, dedicated to treating the mentally ill and emphasizing the therapeutic value of design. The shift from simple prisons to purpose-built asylums reflected the recognition that madness was a disorder of the mind, not just a loss of reason, requiring specialized care. These asylums were designed to provide treatment and support for the mentally unstable.

2.2.4 19th century (Construction of asylums)

The construction of asylums was based on two principles: isolation, removing patients from their surroundings, and moral treatment, allowing doctors to influence their disturbed minds. Early works on mental health facilities led to the establishment of asylums, but the living conditions for patients remained largely unchanged. These asylums transformed into therapeutic communities, emphasizing isolation for a calming environment away from societal distractions. Asylums were built outside cities, providing access to fresh air and nature believed to have therapeutic benefits. They were designed with separate wings for men and women, each with U-shaped living quarters around a courtyard, allowing patients to move freely without disturbing others.

2.2.5 20th century (Declination of asylums)

By the mid-1900, asylums had lost their former prominence, becoming isolated worlds overseen more like large institutions than centers of clinical care. Patients were often unable to leave the crowded facilities. A shift away from these large institutions began in the 1920's, with the belief that treatment outside asylums might be more effective. The Henri-Rousselle Hospital in Paris, established in 1922, offered outpatient services and research labs, marking a move towards community-based mental health care. Despite changing names, the essence of asylums remained largely unchanged.

2.2.6 Community-based mental health care

Deinstitutionalization began post-world war II, aiming to untangle psychiatric treatment from large institutions and bring it closer to patients. The introduction of new medications in the 1950's like antidepressants and antipsychotics, played a key role by reducing symptoms and enabling treatment within society. However, this led to a "revolving door" effect, as patients often returned to hospitals due to lack of post-treatment support. Recognizing this, there's now a shift towards creating intermediate structures like day hospitals to bridge the gap between acute and long-term care.

2.3 MENTAL ILLNESS

Mental illness or mental disorder is a deeply emotional issue, as it involves subjective judgments about what is considered normal or abnormal within a given society. Similarly, the definition of mental health is equally complex. According to the World Health Organization (WHO), mental health is a state of well-being where an individual realizes their own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and can contribute to life. At each stage, we encounter various challenges, some of which we may or may not feel equipped to handle.

Yet, mental health is not just about strength, well-being, and strong mental capacities. It also involves the ability to acknowledge our own weakness and limitations and to effectively manage them.

2.3.1 Mentally ill

The World Health Organization (WHO) describes mental health as a dynamic interplay among biological, psychological, economic, socio-culture, and institutional factors. Therefore, mental health is a complex process heavily influenced by these external factors in addition to individual perspectives.

An individual's susceptibility to a mental disorder depends on various factors such as their genetic predisposition, mental state, and the environment they live in. Mental disorders can affect anyone and are quite common in society. Studies from the seventies to the nineties showed that nearly every person meets the criteria for a mental disorder at least once in their lifetime.

People who experience significant life changes or challenging situations are particularly at risk of developing a mental disorder. Events like the onset of puberty, transitions to adulthood, entry into the workforce, retirement, divorce, professional setbacks, or experiences of violence can all lead to mental issues. The risk of becoming ill, increases when multiple factors are present.

Why are more people experiencing mental illness now than before? There are differing opinions on the reasons for the increasing number of individuals seeking psychiatric treatment. Some believe that new environmental stressors such as rapid changes, pressure to succeed, and unhealthy work environments are contributing factors. Additionally, evolving ideas about mental health and illness have led to more behaviors falling under the category of mental illness. What was once considered part of someone's personality is now recognized as a treatable condition.

Furthermore, advancements in neuroscience and genetics have made it possible to treat more and more disorders. This means that while the number of diagnosed cases may not have actually increased, behaviors that were previously seen as inherent traits are now understood as mental illnesses and are therefore treated. As a result, the number of treated cases has risen. It can be said that the increasing mental strain, evolving perceptions, and higher levels of awareness about health have all contributed to the rapid growth in psychiatric treatments.

2.3.2 Causes of Mental illness

The causes of mental illness can be diverse and multifaceted. Here are some common factors that can contribute to the development of mental health disorders are

(a) Biological Factors

Genetics and hereditary traits can play a significant role. If there's a family history of mental illness, an individual might be more predisposed to developing a disorder.

(b) Brain chemistry and structure

Variations in neurotransmitter levels (chemical signals in the brain) can result in disorders such as depression, anxiety, and schizophrenia. Additionally, irregularities in the brain's physical structure may contribute to these conditions.

(c) Environmental Factors

Stressful life events such as trauma, abuse, neglect, or loss of a loved one can trigger mental health issues. Chronic stress from work, school, relationships, or financial problems can also contribute.

(d) Childhood Experience

Adverse childhood experiences (ACEs) like neglect, abuse, or unstable family environments can have long-lasting effects on mental health.

(e) Substance Abuse

Alcohol, drugs, and certain medications can alter brain chemistry and increase the risk of mental illness.

(f) Physical Health Conditions

Chronic illnesses, injuries, or conditions that affect the brain (such as tumors) can sometimes lead to mental health symptoms.

(g) Social and Cultural Factors

Social isolation, discrimination, stigma, and lack of access to resources or support can impact mental well-being.

(h) Personality Traits

Certain personality traits or coping styles may make individuals more vulnerable to mental health disorders. For example, perfectionism or a tendency to internalize stress.

(i) Developmental Factors

Neurodevelopmental conditions like autism spectrum disorder often manifest in childhood and are lifelong.

(j) Hormonal Changes

Fluctuations in hormones, such as during puberty, pregnancy, or menopause, can influence mood and mental health.

2.3.3 Types of Mental illness

- Disorders of Neurodevelopment
- Disorders in the schizophrenia spectrum and other psychotic disorders
- Bipolar disorders
- Depressive disorders
- Anxiety disorders
- Obsessive-compulsive disorders
- Trauma and stressor disorder
- Dissociative disorders
- Somatic symptom disorder
- Feeding and Eating disorders
- Elimination disorder
- Sleep-wake disorder
- Sexual dysfunctions
- Gender dysphoria
- Disruptive, impulse-control, and conduct disorder
- Substance-related and addictive disorders
- Neurocognitive disorders
- Paraphilic disorders
- Other mental disorders

2.3.4 Importance of Therapy

Treatment for mental illness occurs across diverse settings and often includes a multidisciplinary team of professionals such as counselors, psychiatrists, psychologists, nurses, mental health aids, and peer support specialists. This collaborative approach ensures that a range of expertise is available to cater to the complex needs of individuals seeking help. No single approach works for everyone is mental health treatment due to the unique nature of mental health problems. Even individuals sharing the same diagnosis can present with vastly different symptoms, experiences, and responses to treatment.

The absence of a one-size-fits-all approach underscores the importance of personalized care in mental health treatment. Each person's journey toward mental well-being is distinct, shaped by their life circumstances, genetic predispositions, environmental influences, and personal coping mechanisms. A tailored approach allows for interventions that address the specific challenges faced by each individual. Whether it's through therapy, medication management, lifestyle adjustments, or a combination of these, the goal is to provide comprehensive and effective care that considers the nuances of each person's mental health journey. This personalized approach not only increases the likelihood of successful outcomes but also promotes empowerment and resilience in those navigating the complexities of mental illness.

2.3.5 Type of Therapies

(a) Psychotherapy

This involves an ongoing dialogue between a patient and a mental health professional. It aims to explore thoughts, emotions, behaviors, and past experiences to promote healing and improve mental well-being.

(b) Group Therapy

In group therapy, a mental health professional leads a session with a group of individuals who share similar concerns or challenges. This format allows participants to gain support, learn from

(c) Cognitive Behavioral Therapy (CBT)

CBT is one of the most widely used therapies for various mental health conditions. It focuses on identifying and changing negative thought patterns and behaviors that contribute to the individual's distress. CBT helps individuals develop coping skills and strategies to manage symptoms effectively.

(d) Biomedical Therapy

This approach involves the use of certain medications to treat or reduce the symptoms of mental disorders. Psychiatric medications, such as antidepressants, antipsychotics, and mood stabilizers, are prescribed based on the specific diagnosis and symptoms of the individual

(e) Dialectical Behavior Therapy (DBT)

DBT is often used for conditions such as borderline personality disorder and chronic suicidal thoughts. It combines cognitive-behavioral techniques with mindfulness practices to improve emotion regulation, interpersonal skills, and distress tolerance.

(f) Psychodynamic Therapy

This type of therapy explores unconscious thoughts and past experience to understand how they influence current behaviors and emotions. Psychodynamic therapy aims to increase self-awareness and insight into one's patterns of thinking and behaving.

(g) Interpersonal Therapy (IPT)

IPT focuses on improving interpersonal relationships and communication skills. It helps individuals address specific problems with relationships and navigate life transitions.

(h) Acceptance and Commitment Therapy (ACT)

Act aims to help individuals accept their thoughts and feelings while committing to actions that align with their values. It emphasizes mindfulness, acceptance, and behavioral change.

(i) Exposure Therapy

Often used for anxiety disorders, exposure therapy involves gradually exposing the individuals to feared situations or objects in a controlled environment. This helps reduce anxiety responses and desensitize the person to triggers.

(j) Eye Movement Desensitization and Reprocessing (EMDR)

EMDR is an effective therapy for individuals with trauma-related disorders such as PTSD. It involves recalling distressing memories while focusing on external stimuli or bilateral eye movements to process and reduce the emotional impact of traumatic experiences.

(k) Family Therapy

Family therapy involves the individual and their family members in treatment. It focuses on improving communication, resolving conflicts, and strengthening family dynamics to support the person's recovery.

(l) Mindfulness-Based Therapies

These include Mindfulness-based stress reduction (MBSR) and Mindfulness-Based Cognitive Therapy (MBCT). They integrate mindfulness practices, meditation,, and cognitive-behavioral techniques to reduce stress, manage emotions, and prevent relapse.

(m) Art Therapy

Utilizes creative processes such as painting, drawing, and sculpting to explore emotions and express thoughts. It can be particularly beneficial for individuals who may finds it challenging to verbalize their feelings.

(n) Animal-Assisted Therapy

Involves interactions with trained animals to promote emotional well-being and reduce stress. Animals like dogs and horses are commonly used in this type of therapy.

(o) Music Therapy

Uses music and musical activities to address emotional, cognitive, and social needs. It can help reduce anxiety, improve mood, and enhance communications skills.

2.4 CONDITION OF MENTAL HEALTH IN INDIA (NHRC,2017)

- In 2017, one in seven individuals in India had a mental health issues, with a significant increase in mental health contribution to overall illness burden since 1990.The highest disease burden was from depression and anxiety, followed by schizophrenia and bipolar disorder, with DID and conduct disorders also prevalent.
- The higher prevalence of depression and anxiety in southern states may be linked to modernization and urbanization. A positive correlation was found between depressive disorders and suicide rates, higher in southern states than in northern ones.
- The Supreme Court, alarmed by conditions violating fundamental rights, ordered the NHRC to review all 37 government mental hospitals.
- The 1996 NHRC report, summed up as “Maybe the time had stopped,”highlighted major issues.
- Surveys in 1998 to 2008 revealed deficiencies in mental hospitals, illustrating challenges in mental healthcare.

- Mental hospitals often retained a prison-like design, with overcrowding evident (1:14 patient-bed ratio), inadequate facilities, and lack of basic amenities.
- Common issues included leaking roofs, overflowing toilets, and poor lighting, with limited security and insufficient staff satisfaction.
- Current treatment in mental hospitals is often custodial rather than therapeutic, emphasizing the need for short-term services like counseling and psychotherapy.
- There's a pressing need for infrastructure restructuring and upgrading in mental hospitals.
- Renaming mental hospitals to Institutes of Mental Health is proposed for a more modern approach.

2.5 THE PATIENT

Inpatient psychiatric clinics offer intensive, round-the-clock care by a team of professionals, ensuring close monitoring of symptoms and immediate treatment adjustments. They provide safety and stability for patients in acute distress, removing external stressors. The structured routine includes therapy sessions and medication management, aiding those struggling with self-care. These clinics are equipped to manage crises like suicidal ideation and offer invaluable peer support through group therapy. Patients have access to various therapies in one location, accelerating recovery. Clinicians closely monitor progress and plan for a smooth transition to outpatient care. The goal: a safe, supportive environment fostering stability and well-being.

2.6 RECOVERY

In Ghana, there is a prevailing belief that once someone is diagnosed with a mental illness, full recovery is unlikely. Even experts in recovery often view mental illness as a lifelong condition. This belief is often fueled by fear. However, research conducted at the National Empowerment Center has shown that individuals can indeed fully recover from even the most severe forms of mental illness. In-depth interviews with people diagnosed with schizophrenia have demonstrated that they are capable of reintegrating into society and managing their lives independently. While they may have recovered from their mental illness, they, like everyone else, continue to heal emotionally. Many no longer require medication and instead rely on holistic health practices, with the support of loved ones, to aid their recovery. Studies have indicated that a majority of individuals recover from severe mental illness over a span of 20 years. According to the World Health Organization (WHO), the recovery rate from severe mental

illness is actually higher in developing countries compared to Western industrialized nations. This misconception may be dispelled if individuals with mental illness are able to fully recover and no longer need medication.

2.7 REHABILITATION

Many individuals perceive rehabilitation as the process that prepares patients to reintegrate into the community after completing medical treatment. Conversely, some view rehabilitation as an ongoing and continuous process without distinguishing between medical interventions and the subsequent preparatory activities. They assert that rehabilitation begins the moment a patient enters the clinic and may continue even after discharge. Examples of this ongoing cycle can be seen in community nursing, where nurses may conduct regular visits to patient's home long after discharge from the hospital. The purpose of these visits is to administer the patient's regular medication, provide counseling, monitor the behavior, and report the observations to the appropriate team member.

Rehabilitation is a structured endeavor that aims to restore an individual's physical and mental abilities and enhance their quality of life to a level as close as possible to what existed before their illness. The means to achieve this is termed as treatment, which implies healing interventions. The goal is to assist the patient in regaining full health. Rehabilitation involves instilling hope and confidence in the treatment process. This suggests that the purpose of rehabilitation includes instilling or compensating for positive skills or attitudes in an individual to enable them to have a more fulfilling and contributor role in society.

2.8 DESIGN CONSIDERATION

- 1.** Transitioning away from institutionalized settings to more homelike environments fosters a sense of relaxation, security, and belonging, aiding patients in their healing journey. Psychiatric facilities should serve as a bridge between home and society.
- 2.** Embracing a sprawling design, typically one to two stories, allows for natural light, fresh air, and access to the outdoors, all crucial elements in the recovery process.
- 3.** Prioritizing privacy by offering private rooms and bathrooms is highly preferred by patients. Individual living spaces maximize psychological contentment and comfort for those undergoing treatment.
- 4.** A well-organized and properly maintained environment not only conveys respect for patients

but also promotes a sense of orderliness and attentiveness to their needs.

5. Incorporating access to nature is crucial, as outdoor spaces have a positive impact on both the physical and mental well-being of patients, serving as a valuable resource for their recovery and rehabilitation.

6. Utilizing attractive furnishings helps alleviate the institutional atmosphere, thereby enhancing emotional and intellectual well-being, ultimately influencing patient's behavior positively.

7. Fostering social interaction is crucial for the recovery process, as it combats feelings of isolation and helps patients reintegrate into society more effectively following their treatment.

8. Providing patients with a sense of freedom and control is essential for their recovery journey, addressing concerns about lack of autonomy and empowering them to actively participate in their treatment.

9. Maximizing natural and artificial lighting is essential in psychiatric facilities, as it is linked to improved sleep quality, reduced aggression, and shorter patient stays, contributing to overall comfort and well-being.

10. Prioritizing safety and security within the facility environment is paramount, alleviating staff concerns about potential violence from patients and ensuring a conducive healing environment.

11. Implementing noise control measures is important, as excessive noise can exacerbate patient stress and hinder their treatment progress.

12. Maintaining high standards of hygiene is critical, as cleanliness directly impacts the quality of life for patients and contributes to their overall well-being.

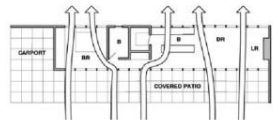
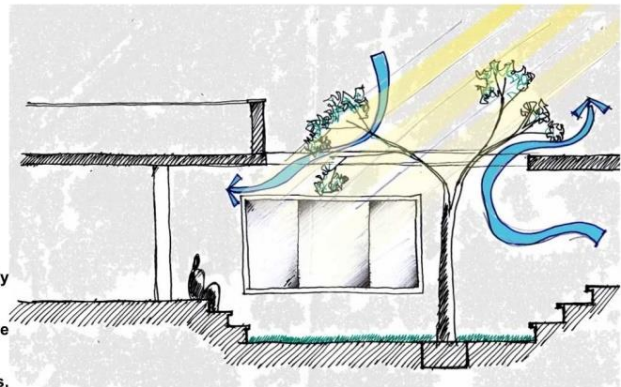
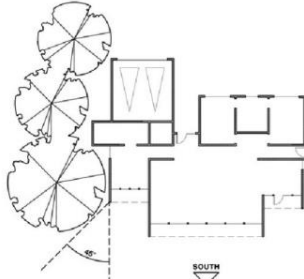
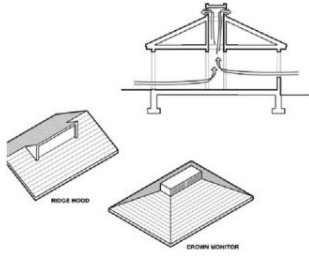
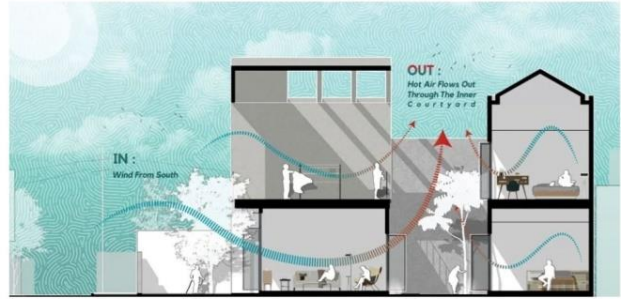
13. Increasing entertainment amenities within psychiatric facilities is beneficial for patient treatment and rehabilitation, as it improves rest quality and aids in their reintegration into society post-hospitalization.

14. Nurse station design should balance patient management and staff security, considering factors like open versus closed layouts to optimize workflow and safety.

15. Suicide prevention measures are integral to psychiatric hospital design, with furniture and furnishings selected or adapted to minimize the risk of self-harm among patients.



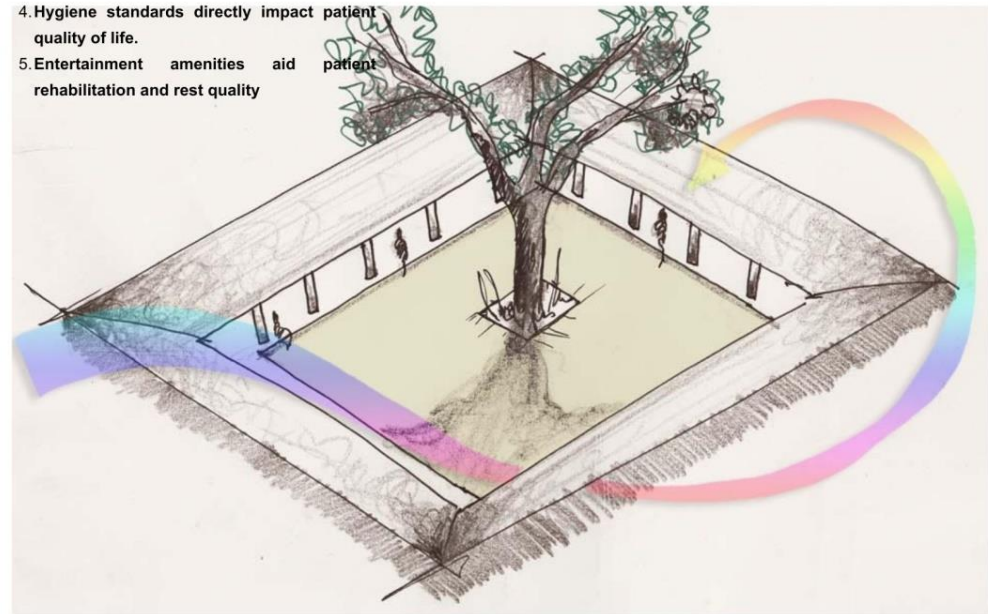
1. Transitioning to homelike environments aids healing, fostering relaxation and belonging.
2. Sprawling designs offer natural light and fresh air, crucial for recovery.



1. Maximizing lighting improves sleep quality and reduces patient stays.
2. Safety measures ensure a conducive healing environment.
3. Noise control reduces patient stress, facilitating treatment.
4. Hygiene standards directly impact patient quality of life.
5. Entertainment amenities aid patient rehabilitation and rest quality



1. Private rooms prioritize patient privacy, enhancing comfort during treatment.
2. Well-organized environments show respect and meet patient needs efficiently.



1. Access to nature supports physical and mental well-being, aiding rehabilitation.
2. Attractive furnishings combat institutional atmosphere, promoting well-being.



1. The project's core focus on healing is realized through numerous bamboo-filled courtyards, fostering a serene and therapeutic environment. These tranquil spaces promote relaxation and well-being, enriching the overall healing experience.
2. Individual spaces and solitude, complemented by nature's presence, contribute significantly to the healing process. Embracing the therapeutic power of nature, these secluded areas offer patients moments of introspection and rejuvenation, fostering holistic well-being.

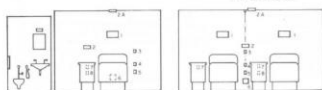
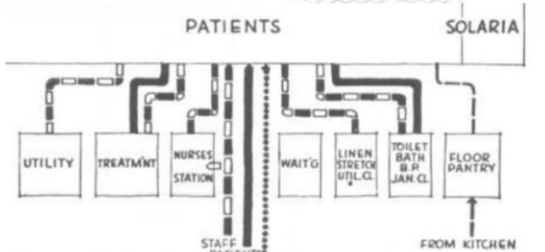
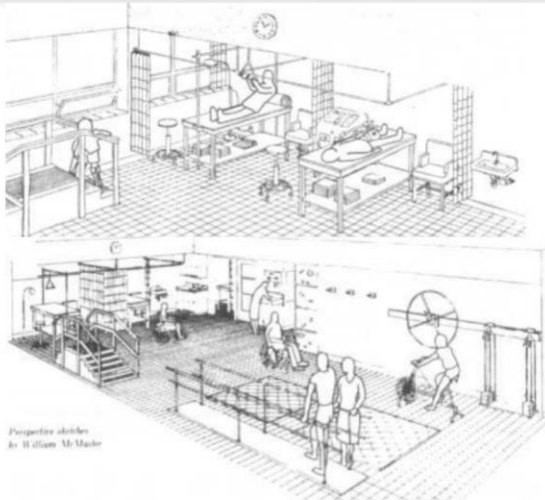
CHAPTER 3

DATA COLLECTION AND STANDARDS

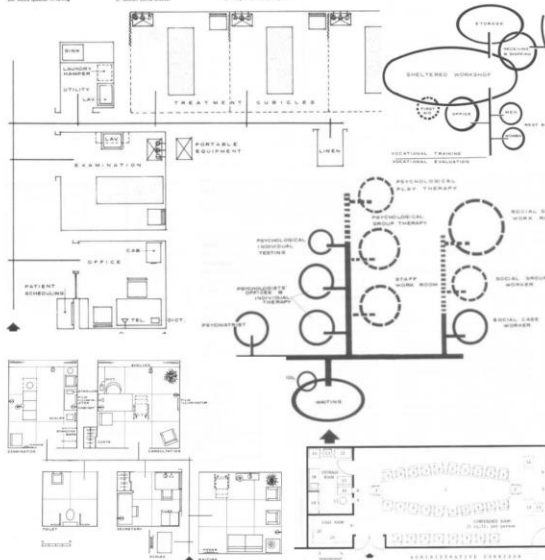


EMBARKING ON WELL-NESS:
Behavioral health & Rehabilitation journey

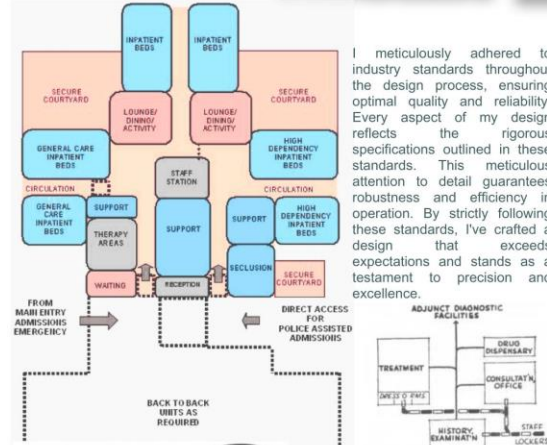
STANDARDS 04



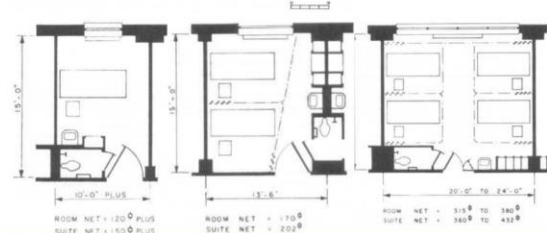
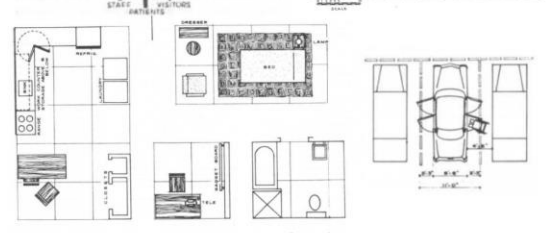
- 1. Standard light
- 2. Patient bed
- 3. Nurse station
- 4. High light visible window view door
- 5. Double room layout
- 6. Single room layout
- 7. High light visible window view door
- 8. High light visible window view door
- 9. High light visible window view door
- 10. High light visible window view door



Drawing from the Indian Health Facility Guidelines, I optimized spatial design for enhanced functionality and user well-being, ensuring compliance with stringent healthcare standards.



I meticulously adhered to industry standards throughout the design process, ensuring optimal quality and reliability. Every aspect of my design reflects the rigorous specifications outlined in these standards. This meticulous attention to detail guarantees robustness and efficiency in operation. By strictly following these standards, I've crafted a design that exceeds expectations and stands as a testament to precision and excellence.



CHAPTER 4

CASE STUDIES

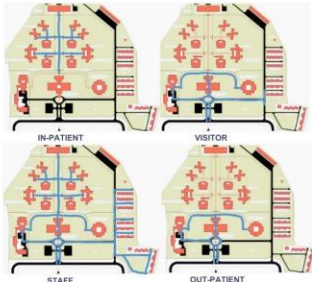


EMBARCKING ON WELL-NESS: Behavioral health & Rehabilitation journey

CASE STUDY 05

Vidyasagar Institute of Mental Health
Location : Amritsar
Area : 36.7Acres
Designer : Sarbjit Singh Bahgay

Year : 2004
No. of floors : G+2



- 1 Main Entry
- 2 Parking
- 3 OPD
- 4 Occupational Therapy/Rehabilitation
- 5 Voluntary unit
- 6 Canteen
- 7.Sarae Presently hostel for nursing
- 8 Intermediate care
- 9 Forensic unit
- 10 Acute unit
- 11 Chronic unit
- 12 Kitchen and laundry
- 13 Staff residence
- 14 Doctor residence



Ostra Psychiatric hospital

Location : Goteborg sweden
Area : 18000sq.m
Designer : White Architects

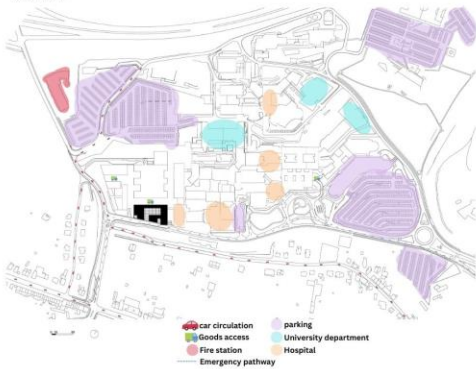
Year : 2001
No. of floors : G+2



University Psychiatric Centre

Location : Leuven Belgium
Area : 9374sq.m
Designer : Stephane beel
Architects

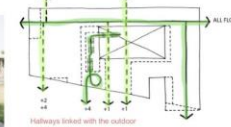
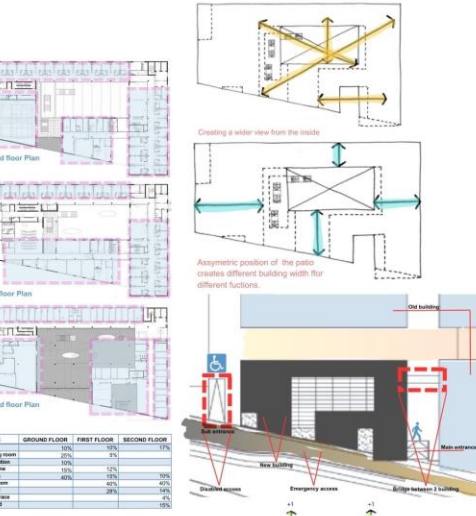
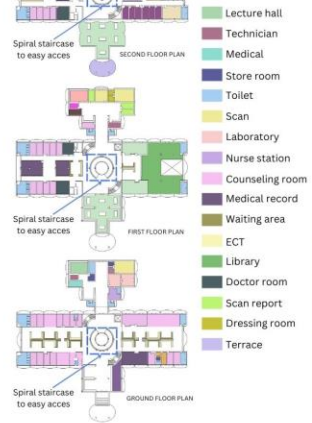
Year : 2015
No. of floors : G+3



UNIT	NO. OF BEDS	FLOOR	BEDS
Chronic unit	538	G	50-50
Acute unit	336	G	40-40
Forensic unit	690	G	20-20
Intermediate unit	419	G	100
OPD	1719	G+2	200
Voluntary unit	184	G	50
Hostel for nursing /Cafe	104	G+1	
Occupational therapy/Rehabilitation	373	G	
Staff residence	400	G+2	
Doctor residence	500	G+2	
Pathways			

CIRCULATION

- In-patient
- Out-patient
- Visitor
- Staff





EMBARCKING ON WELL-NESS: Behavioral health & Rehabilitation journey

CASE STUDY 06

Institute of mental health

Location : Göteborg sweden

Year : 2001

Area : 18000sq.m

No. of floors : G+2

Designer : White Architects



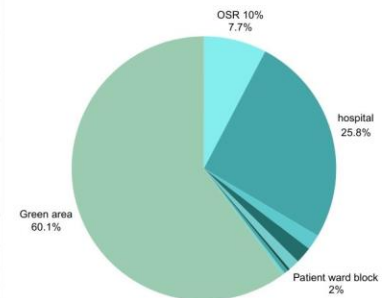
UNIT	AREA (SQ.M)	FLOOR	BEDS
Security	9	G	
Ambulance parking	6		
Tele booth	18	G	
MR ward	9	G	
Men's ward	88	G	60
Vigilance ward	30	G	20
Aggressive ward	30	G	20
Occupational therapy	70	G	
Women's ward	50	G	30
De-addiction	30	G	20
Gardening			
Head office	250	G+1	
Leprosy ward	20	G	15
Specialized for general	55	G	30
Half-way home	75	G+2	50
Baking unit	55	G	
Criminal ward	55	G	30
Canteen	21	G	
Yoga	11	G	
Store room	10	G	
Diarrhea	15	G	10
Tuberculosis	30	G	20
Enquiry office	20	G	



INFERENCE

- Holistic care integration merges therapy, forensic attention, and community engagement for comprehensive mental health care.
- Patient-centric design emphasizes well-being through planned spaces and innovative additions like winter gardens.
- Designs balance functionality and aesthetics, promoting overall well-being with dynamic lighting and natural connections.
- Strategic security measures ensure patient safety with forensic unit integration and controlled custodial care.
- Diverse treatment modalities, including medication and horticulture, tailor care to individual needs.
- Flexibility and patient autonomy are encouraged, enhancing therapeutic activities and mobility.
- The environment serves as a therapeutic element, incorporating natural features and sustainable considerations.

AREA



SITE DETAILS

Site area - 82555m² - 20.4Acre

OSR (10%) - 8255.5m² - 2.04Acre

AREA DISTRIBUTION

Hospital - 2773m²

Rehabilitation Cluster - 255(8) - 2040m²

Patient Ward Block - 2179m²

Nurse stay block - 1449m²

Canteen - 311m²

Training area - 532m²

Others - 346m²

Total Builtup - 9630m²

PARAMETERS	VIDYASAGAR INSTITUTE OF MENTAL HEALTH	OSTRA PSYCHIATRIC HOSPITAL	UNIVERSITY PSYCHIATRIC CENTRE	INSTITUTE OF MENTAL HEALTH
Location	Amritsar	Göteborg, Sweden	Leuven, Belgium	Kilpauk, Chennai
Year of start	2004	2006	2015	1871
Designer	Sarbjit Singh Bahugay	White Architects	Stephane Beel Architects	East India Company
Area	36.7 Acres	4.4 Acres	2.31 Acres	66 Acres
No. of floors	G+2	G+4	G+3	G+1
No. of Beds	746	372	170	800+500
Site plan				
Material	Concrete & steel, Brick & masonry, Glass, Wood, Aluminium, Vinyl, Plasterboard/drywall, Sustainable materials, Antimicrobial surfaces	Concrete & steel, Alucobond panels, curtain wall, white plaster, yellow panels, red-orange plaster, glass	Concrete & steel, brick, white plastering, glass	Concrete & steel, wood, brick, plastering
Architectural aspects	Holistic integration	Attention to both function and aesthetic considerations	Therapeutic harmony	Nature inspired healing
Planning	It is well planned site with good circulation	planned in different year with with good circulation	This is located within in university campus, well planned	It is planned at different year, so it looks in unorganised way of site with good circulation
Program	OPD, voluntary unit, occupational therapy, cafeteria, hostel, intermediate care, forensic unit, acute unit, chronic unit, staff & doctor residence	OPD, Patient room, Dayroom, Activity room, conservation room, conference room, staff room, nurse station, therapy spaces, counseling room	OPD, Counseling room, observation room, therapy spaces, training room, laboratory, activity area, physiotherapy, patient room, multipurpose hall,	OPD, Tuberculosis ward, criminal ward, de-addiction ward, leprosy, vigilance, aggressive ward, canteen, occupational therapy, men's ward, women's ward, baking unit, MR ward, head office
Treatment modalities	Medication and family interaction	Only Medications	Only Medications	Medications and occupational therapy, gardening
Patient movement	Movement restricted within block	movement restricted within room	movement restricted within room	patient can move on their own inside the site
Security measures	implemented for forensic unit	Custodial care under nurse	Custodial care with time restrictions	Custodial care with time restrictions
Collaboration with external agencies	NGO's	nil	nil	NGO's
Family involvement	they can spend time	nil	nil	NGO can visit
Ventilation	natural ventilation through window	Both Fan & AC used	Both Fan & AC used	natural ventional outside the building
Standard consideration	Patient rooms follows standard	every space planned with standard	every space planned with standard	cluster of rehab follows standard
Stay period in Rehab	40 days	19 days	0 days	Until recovered fully
Biophilic Usage	nil	Complexity and order, Visual connection to nature, Dynamic and diffuse light, Refuge	Winter gardens used in circle central of building	Environment act as a therapy
Inference of case study	An holistic approach to mental health, integrating therapy, forensic care, and community involvement, with a focus on patient well-being through thoughtful architectural design and environmental considerations	This is a efficient design prioritizing patient comfort through well-planned spaces, movement restrictions within rooms, and the incorporation of winter gardens in the central circle, enhancing therapeutic environments with a focus on holistic care. The exclusive use of medication, custodial care under nurses, and attention to both functional and aesthetic aspects demonstrate a patient-centric approach to mental health.	It is harmonious blend of complexity and order, incorporation of dynamic and diffuse light, and the emphasis on visual connections to nature, creating a therapeutic environment that promotes well-being and patient comfort. The strategic design elements, including refuge spaces and adherence to standards, showcase a thoughtful approach to mental health care within the architectural framework.	The inclusion of diverse wards, occupational therapy, and a focus on patients' autonomy within the therapeutic environment, along with the integration of natural ventilation and the understanding that the environment itself acts as therapy, showcases a holistic and enduring commitment to mental health care.

CHAPTER 5

SITE ANALYSIS







EMBARKING ON WELL-NESS: Behavioral health & Rehabilitation journey

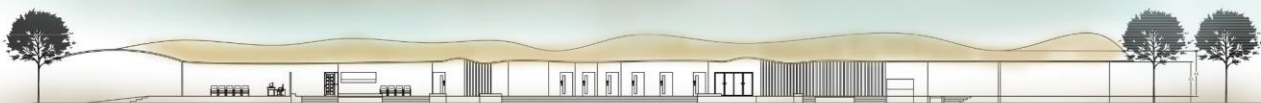
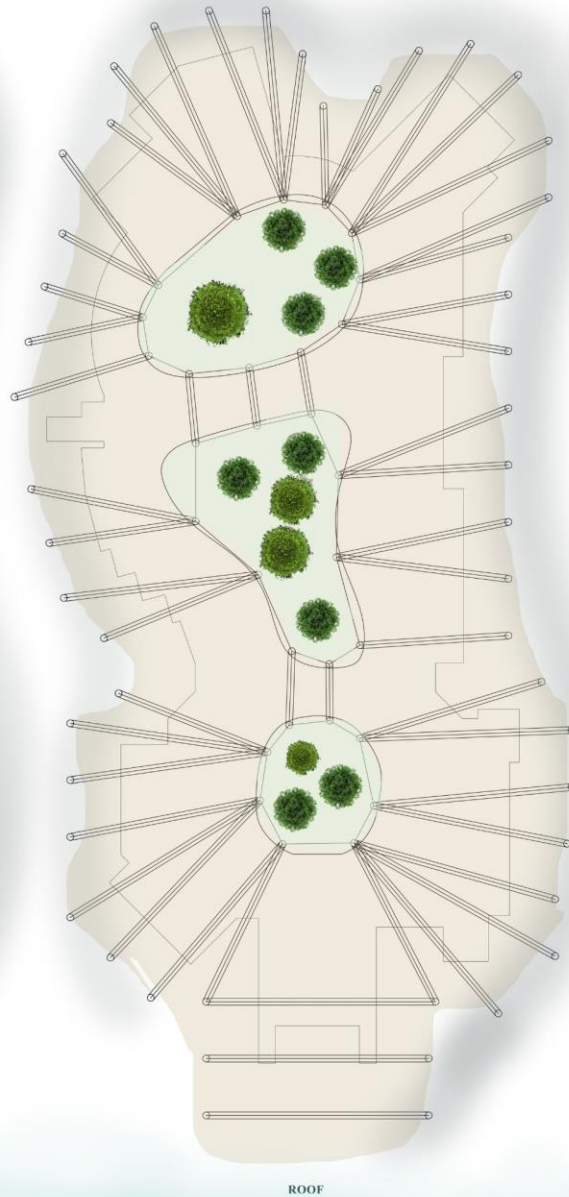
HOSPITAL BLOCK

08

The hospital block, encircled by courtyards of varying sizes, cultivates a serene and therapeutic atmosphere for patients. The strategic placement of these courtyards enhances the healing environment, promoting a sense of calm and well-being. Patients experience a heightened sense of comfort and tranquility as they engage with the natural elements within these spaces. The deliberate design fosters a connection between patients and their surroundings, facilitating the healing process. It's a holistic approach that prioritizes patient comfort and emotional well-being within the healthcare setting.



SCALE
1:200



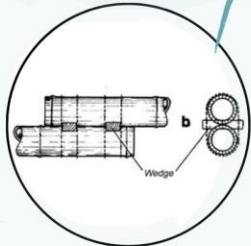
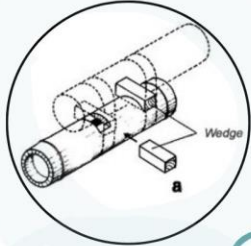


REHABILITATION BLOCK 09

I've curated a rehabilitation cluster nestled in nature, fostering healing and community. Designed akin to a welcoming home, it offers double, triple, and quadruple sharing rooms surrounding a central courtyard. Here, patients find solace and connection, away from the clinical atmosphere of traditional wards or hospitals. It's a sanctuary where recovery intertwines with the soothing embrace of nature and communal support.

N
SCALE
1:100

Roofing detail



ROOF

Material used



BAMBOO ROOF

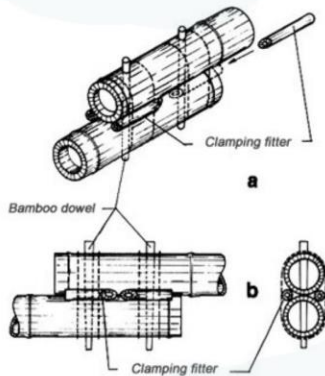


BRICK WALL



PLAN

Bamboo roofing and partitions ensure natural cooling and airflow, preventing excess heat from entering the building. The courtyard serves as a communal space for patients in each cluster, promoting relaxation and social interaction. Through bamboo elements, the building maintains a comfortable environment conducive to healing. Its thoughtful design integrates nature's benefits while fostering a sense of community and well-being among patients.



ELEVATION



SECTION



EMBARKING ON WELL-NESS: Behavioral health & Rehabilitation journey

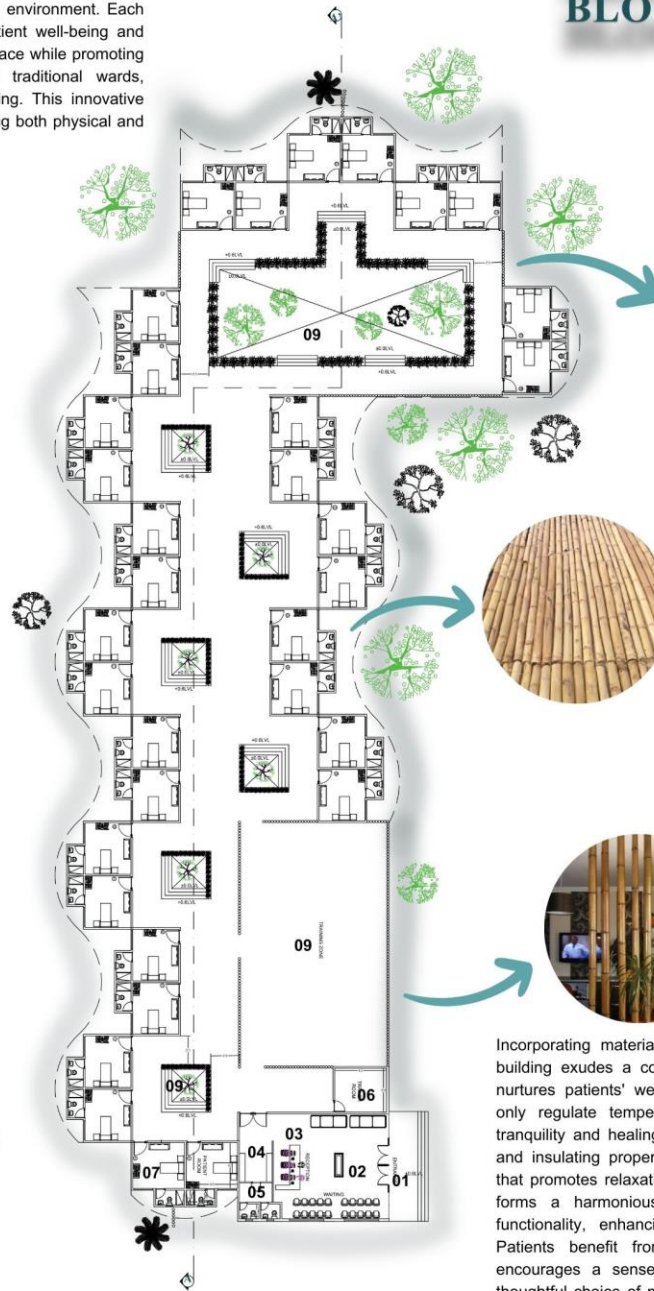
The patient ward is meticulously crafted as an individual care unit, diverging from conventional designs. Featuring courtyards and numerous natural openings, it prioritizes a healing environment. Each element is thoughtfully integrated to enhance patient well-being and comfort. The design fosters a sense of personal space while promoting connection with nature. It's a departure from traditional wards, emphasizing individualized care and holistic healing. This innovative approach redefines the patient experience, elevating both physical and emotional recovery.

PATIENT WARD BLOCK 10

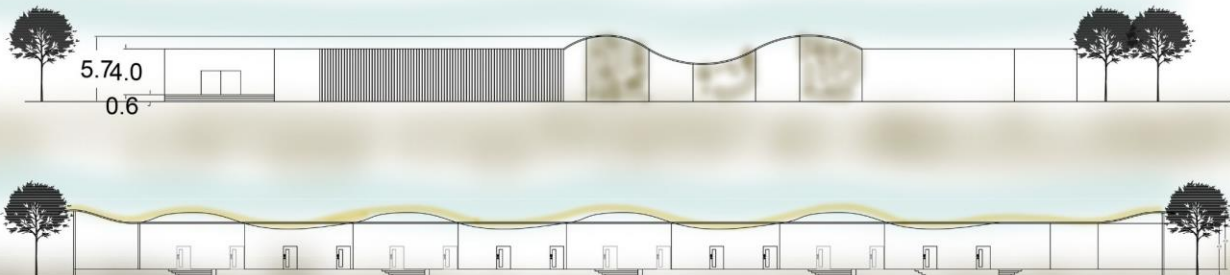


SCALE
1:200

- 01 Entrance
- 02 Lobby/Waiting
- 03 Reception
- 04 Storage
- 05 Toilet
- 06 Trainer room
- 07 Patient room
- 08 Training zone
- 09 Courtyard



Incorporating materials such as bamboo and bricks, the building exudes a cooling and therapeutic ambiance that nurtures patients' well-being. These natural elements not only regulate temperature but also evoke a sense of tranquility and healing. Bamboo, known for its sustainable and insulating properties, creates a soothing environment that promotes relaxation and comfort. Paired with bricks, it forms a harmonious blend of natural aesthetics and functionality, enhancing the overall healing experience. Patients benefit from the calming atmosphere, which encourages a sense of serenity and rejuvenation. This thoughtful choice of materials underscores the commitment to creating a space conducive to holistic recovery and emotional restoration.



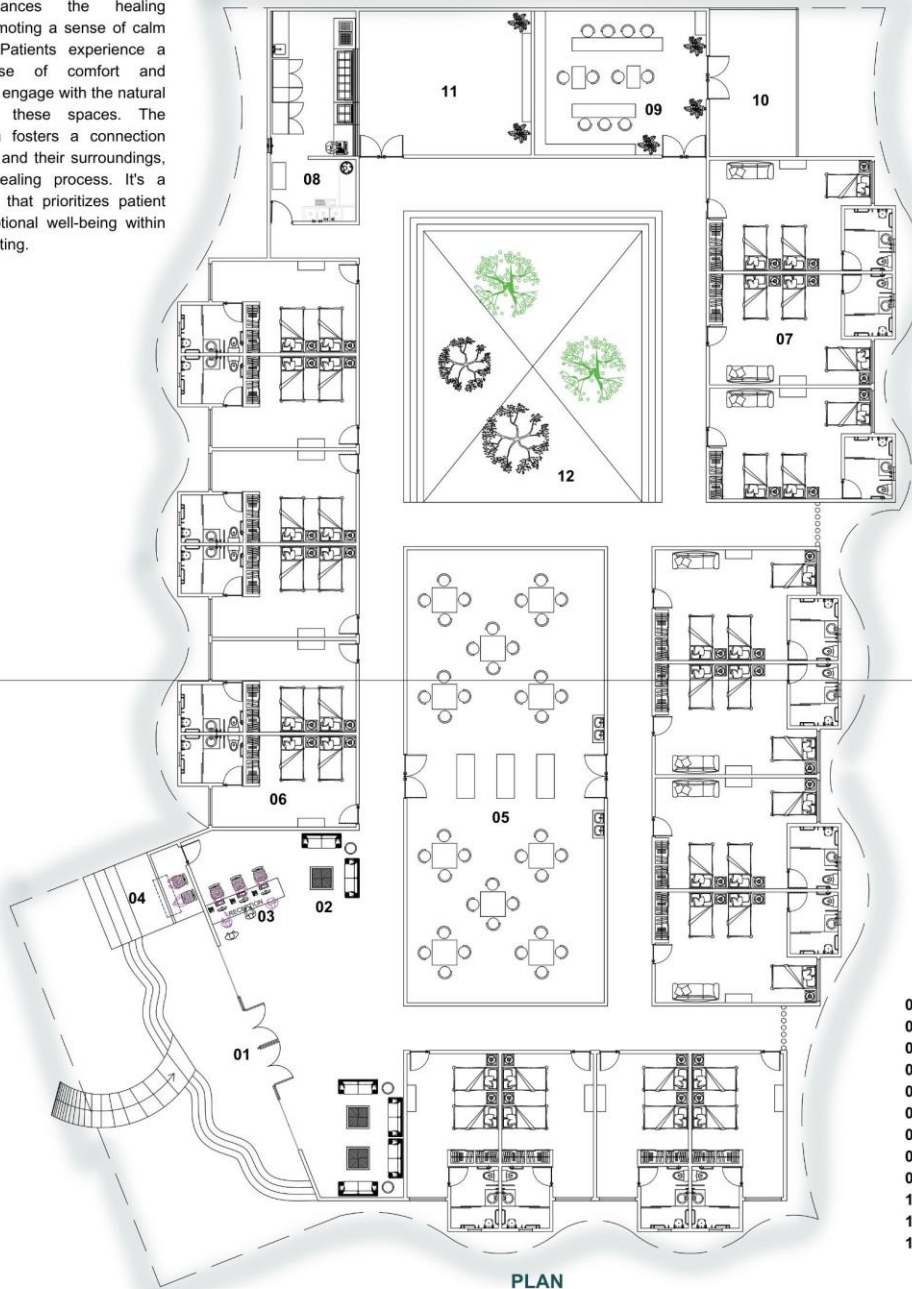


NURSE STAY 11 BLOCK

The hospital block, encircled by courtyards of varying sizes, cultivates a serene and therapeutic atmosphere for patients. The strategic placement of these courtyards enhances the healing environment, promoting a sense of calm and well-being. Patients experience a heightened sense of comfort and tranquility as they engage with the natural elements within these spaces. The deliberate design fosters a connection between patients and their surroundings, facilitating the healing process. It's a holistic approach that prioritizes patient comfort and emotional well-being within the healthcare setting.



SCALE
1:100



- 01 Entrance
- 02 Lobby/Waiting
- 03 Reception
- 04 Visiting pass
- 05 Dining space
- 06 Double sharing room
- 07 Triple sharing room
- 08 Kitchen
- 09 Library
- 10 Outdoor Seating
- 11 TV room
- 12 Courtyard

PLAN



SECTION AA'



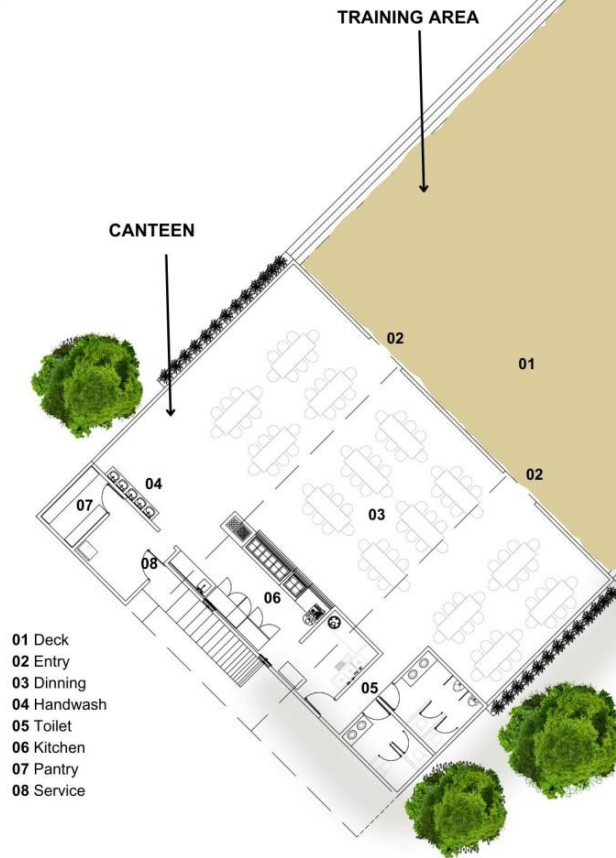
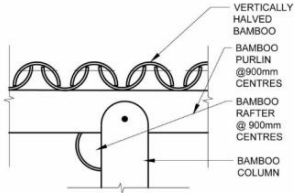
CANTEEN WITH TRAINING

12

The canteen serves not only as a dining area for patients but also as a multifunctional space designed to accommodate various activities. Adjacent to the dining area, a deck is strategically planned to host training sessions and other engaging activities, providing patients with opportunities for personal development and social interaction. Beyond its culinary function, the canteen transforms into a hub of communal engagement, fostering a sense of belonging and purpose among patients. Here, they can not only enjoy their meals but also unwind and recharge, utilizing the deck for relaxation after dining. The integration of diverse activities within the canteen space enriches the overall patient experience, promoting holistic well-being and rehabilitation. It's a thoughtful approach that recognizes the importance of not just nourishing the body but also nurturing the mind and spirit during the recovery process.



SCALE
1:100



The barrel roof, constructed with bamboo materials, serves a crucial function in expelling heat from the canteen while facilitating natural ventilation. This innovative design ensures a comfortable and airy atmosphere within the space, enhancing the dining experience for patrons. Through the strategic use of bamboo and the unique barrel roof structure, the canteen maintains a cool and refreshing environment, even in warm weather conditions. It's a sustainable solution that harmonizes functionality with eco-conscious design, prioritizing both comfort and environmental responsibility.

