

Breaking the Prison Image: Reimagining Rehabilitation Centers Through Design

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Abstract—Rehabilitation facilities have often been linked to an architectural environment that is institutional in nature and reminiscent of incarceration instead of rehabilitation. This has a negative impact on the psychological well-being of patients and can impede their healing process. Modern research shows how important architectural aspects such as sunlight, openness, and exposure to nature can be for mental well-being ^{[1][3]}.

The paper suggests an innovative way of looking at rehabilitation centers as supportive environments for patients to heal. In this study, the architectural concept is developed through three stages of recovery: Detoxification, Healing, and Reintegration. Emphasis is placed on affordability, sustainability, and people-centered architecture through the implementation of passive strategies, local resources, and self-reliant solutions. This paper proves how well-planned architecture can promote independence, dignity, and recovery.

Index Terms—Rehabilitation Architecture, Healing Spaces, Biophilic Architecture, Sustainable Design, Drug Rehabilitation, People-Centered Design, Affordable Architecture

I. INTRODUCTION

Addiction recovery is not only related to the medical part but also psychological and social recovery processes. However, most of the rehabilitation centers still use spaces reminiscent of the closed institution with features such as enclosure, monitoring, and user limitation.

Recent research shows that there is a strong correlation between built environment design and its effect on human psychology and behavior ^[2]. Features of architectural designs such as daylight, airflow, and integration of the environment can be conducive to healing. In opposition, confined,

monotonous spaces can create tension and resistance amongst the users.

This research intends to prove the need for new designs which will prioritize openness, comfort, and connection with nature.

II. LITERATURE REVIEW

A. Healing Architecture

Healing architecture is the architecture design which enhances healing by promoting good health ^[1]. Such design includes:

Availability of sunlight and fresh air

Link between interior and exterior space

Utilization of calming building materials and appropriate spatial proportioning

Privacy and opportunity for social interaction

Unlike conventional architectural designs which act merely as coverings, healing architecture contributes significantly to the healing process.

B. Environmental Impact on Recovery

Based on studies, the design of an environment directly influences how its users behave ^[2]. A well-realized environment can inspire people, reduce anxiety and urge takers to participate in the therapeutic process.

C. Biophilic Design Principles

Biophilic Design is everything related to the inclusion of nature in buildings ^[3]. It encompasses:

Greenery and landscaping

Water elements

Natural materials such as bamboo and wood

Natural lighting and ventilation

Extremely useful for healing environments, research has shown that these elements can aid in stress reduction and mood improvement.

D. Human-Centered Approach

Commonly used rehabilitation centers rarely consider user experience and focus mainly on problems related to security and control. Human-centric approaches take into account:

Dignity of a person

Comfort for mental health

Easy transition from private to public space

Interactions between people

This approach may foster a more supportive environment ^[5].

III. RESEARCH GAP

Although previous studies have concentrated on healing spaces and rehabilitation designs, the following aspects related to those subjects remain underexplored:

Cost effectiveness together with high-quality spatial design

Use of sustainable systems ^[6]

Suitable spatial response considering every recovery stage

The present study attempts to bridge the research gaps by providing an overall design solution.

IV. AIM AND OBJECTIVES

Objective

To design a unique process for the construction of rehabilitation facilities that will incorporate elements of inclusiveness, sustainability, and holistic rehabilitation.

Goals

Not to consider rehabilitation facilities as prisons

To create spaces that correlate with each stage of rehabilitation

To use sustainable construction techniques

To increase the accessibility to different socio-economic classes

V. METHODOLOGY

This study uses qualitative methodology, involving both literature analysis and firsthand field observations.

Primary Data Collection

Primary data was gathered via unstructured but organized conversations with patients being treated at a rehabilitation center situated in the region of Vidarbha in India.

Analysis Method

Data analysis involved the following topics:

Perception of emotions in spaces

Confined vs. free experience

Connection with nature and open space

Social engagement vs. isolation

VI. FIELD INSIGHTS & USER EXPERIENCE

6.1 Perception of Rehab Spaces

The rehabilitation centers were repeatedly perceived by the participants as:

Being “closed” and “restrictive”

As similar to confined environments

Without warmth and comfort

6.2 Need for Openness and Nature

The preference for an open space, access to greenery and natural lighting and air, as reported by the participants, were linked to decreased levels of stress and better moods ^{[1][3]}.

6.3 Need for Social Interaction as Against Isolation

Isolation is mentally taxing in the long run, while social interaction helps motivation ^[7].

6.4 Dignity in Physical Space

Participants emphasized the importance of feeling normal rather than monitored. Home-like environments were preferred ^[5].

VII. CONCLUSION

Field knowledge was crucial in determining the three phases of the proposed model:

Phase of Detoxification -> Controlled but not oppressive spaces

Phase of Healing -> Nature-friendly and social spaces

Phase of Reintegration -> Open and semi-independent spaces

These results show that the approach to design must be from control-based to trust-based.

VIII. CONCLUSION

Rehabilitation centers need to become spaces of healing, respect, and development.

REFERENCES

- [1] Ulrich RS. View through a window may influence recovery from surgery. *science*. 1984 Apr 27;224(4647):420-1.
- [2] Gifford R. *Environmental psychology: Principles and practice*.
- [3] Kellert SR. Dimensions, elements, and attributes of biophilic design. *Biophilic design: the theory, science, and practice of bringing buildings to life*. 2008 Jan; 2008:3-19.
- [4] Sternberg EM. *Healing spaces: The science of place and well-being*. Harvard University Press; 2009 May 31.
- [5] Fuge M, Agogino A. Pattern analysis of IDEO's human-centered design methods in developing regions. *Journal of mechanical Design*. 2015 Jul 1;137(7):071405.
- [6] World Health Organization. *Policies, regulations and legislation promoting healthy housing: a review*. World Health Organization; 2021.
- [7] De Leon G, Wexler H. The therapeutic community for addictions: An evolving knowledge base. *Journal of Drug Issues*. 2009 Jan;39(1):167-77.