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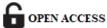
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# CHEAP AND EXPENSIVE DRUG REHAB CENTRES: THE IMPACT OF ARCHITECTURE ON PATIENTS' MINDSETS

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#### **ABSTRACT**

The research paper aims to compare the architectural style of cheap and expensive drug rehabilitation centres and therefore finding out their effect on the patients' way of thinking and treatment. This paper explores how such spatial characteristics as space, light, and access to nature contribute to the overall well-being of patients concluding that newer, and therefore, more costly centres provide patients with a positive environment for recovery. As part of a comparative case study and surveys with patients, this paper examines differences in design and presents measures to enhance lower-cost centres.

**Keywords:** Drug rehabilitation centres, architectural design, patient mindset, environmental psychology, socioeconomic disparities, therapeutic spaces.

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## I. INTRODUCTION

The context of rehabilitation is a crucial factor that has an impact on the effectiveness of the treatment process, architectural setting is most influential on the patients' mental states. Rehabilitation is a clinical process, but it is also an emotional psychological process, depending on several different factors some of which relate to the environment in which the patient finds themselves. This research work aims at highlighting and analysing the architectural distinction between inexpensive and expensive drug rehabilitation centre and how differences affect patient attitude and factors relating to their recovery. But more luxurious rehabilitation facilities subsequent therapeutic design and nature availability, privacy, and beautiful interior and exterior design clients may not have such opportunities in less expensive rehabilitation centres.

This leads to the following research questions: To what extent do environmental factors affect the recovery and is it possible to enhance the quality of lower cost rehabilitation centres?

#### A. Research Problem

This study seeks to answer the following research question: What impact does the quality of constructions of cheap and expensive rehab centres have its impact on the psychologically induced health of the patients? Through comparing these differences, the paper aims to identify the relationship between architecture and recovery process in rehabilitative contexts.

# B. Objectives

The objectives of this study are as follows:

To compare the aspects of cheap and costly drug rehabilitation centres.

To explore the way in which architecture affects the patients themselves and their attitude to their recovery.

To investigate the psychological set theories that exacerbate, suppress or influence architecture and mental health in rehabilitation centres.

## C. Thesis Statement

This research work posits that architectural design plays a major role in experiences of patients in drug rehabilitation centres, positing that expensive centres offer therapeutic milieu that led to patients' well-being being better, in contrast to more inexpensive units that offer no supports to lead to stable mental states.

## II. LITERATURE REVIEW

# A. The Role of Architecture in Healthcare Settings

Research evidence shows how architectural design is connected to patients' experiences or outcomes in healthcare. It has been established that interest in creating light and designed spaces, be they colours or growing plants, has been recorded to have the ability to change patient mood and their overall physical well-being in hospitals [1], [2]. Hospitals and clinics whose layouts embrace psychological comfort of the user suggest improved recovery rates since the environment achieves what can be referred to as, psychological comfort since many people receiving treatment display some level of stress [3].

## B. Drug Rehabilitation Environment

Culture within drug rehabilitation centres is important in the process of their recovery. Existing studies indicate that patient outcomes improve when healthcare facilities are built holistically to include emotional patient care [4]. For instance, centres that include incorporation of light colour theme, visibility to natural light and contact to green area were reported to enhance the success rate of recovery MOZID, et al, 2013 pp. According to the previous research, the patient in such surroundings said that they feel more at ease and inspired than the patients placed in cramped, crowded and low light areas [5].

# C. Economic Disparities in Healthcare Architecture

Gaps in financing become articulated through variations in the architectural qualities and standards of drug rehabilitation centres. High-cost centres spend more time and money to ensure they achieve therapeutic environments for their patients while the low-cost centres sacrifice this to save money [6]. This architectural divergence has to do with other socio-economic differences in full delivery of health care services to patients and subsequent possibly slow wellbeing in cheap hospitals [7].

# III. METHODOLOGY

# A. Comparative Case Study Approach

This research adopts a comparative research method whereby the subject selects at least one low cost and one high-cost rehabilitation centre. The quantitative data has been derived from architectural plan review, patient interviews and secondary data on rehabilitation [8].

## B. Data Collection

- Visual Analysis: Floor plans and drawings from each centre are obtained to study spatial organization, material selection, and connectivity to the environment.
- Interviews/Surveys: Ex-mental health patients are interviewed to get a picture of their perception and interactions with; architectural space, natural light, and bringing nature into the built environment in their act of healing.
- Secondary Data: Patient feedback, success story, and tested-patient welfare information will be collected to construct a relationship between architecture and recovery [9].

## C. Architecture Analytical Framework

In this paper, the architectural features of each centre will be described and assessed based on principles provided by environmental psychology as the field deals with the effects of physical surrounding on behaviour and emotional state. This framework enables one to assess how space, lighting, nature and privacy influence patient's attitude while undergoing rehabilitation [10].

# IV. RESULT AND DISCUSSIONS

# A. Spatial Layout and Design

- 1. **Cheap Rehab Centres:** Functionality has therefore been regarded to be accompanied by cramped interiors, small spaces, and minimal natural lighting access. Despite nights and weekends practice, patients complained of feeling confined and more stressed due to privacy social distances [11].
- 2. **Expensive Rehab Centres:** From these studies it was possible to identify these facilities as having larger rooms and single, and more openings as well as garden. Outpatients in these centres claimed improved mood balance, and a feeling of relaxation [12].

## B. Lighting and Ambiance

- 1. **Natural Light:** Natural lights are very important in enhancing mental health. While in high-cost cities, exposure to natural light was associated with reduced levels of anxiety and depression [13].
- 2. **Differences in Lighting:** Low-cost centres employ artificial lighting which adds stress. Hypotheses Natural light is said to have a favourable effect with patient outcomes, patients in the centres said they felt more refreshed [14].

#### C. Access to Nature

Biophilic Design: Outdoor spaces, garden, and greens are very relevant sites in the high-cost location aiding in bringing about the feeling of tranquillity and otherwise faster recover [15]. On the other hand, cheaper centres were not equipped with such amenities, thus patients wanted more natural air, more open space [8].

## D. Therapeutic Spaces

Group and Individual Therapy: As with private space, surveys revealed that patients in expensive centres received more comfortable and private rooms for therapy which they said reassured them and made them willing to share [17]. Low-cost centres had cramped, and less remunerative areas and many patients complained of discomfort during therapy [18].

# E. Psychological Impact of Architecture on Patients

- 1. **Stress and Anxiety**: In costly centres, the characteristics of design lessened pressure, but in centres which had many attendees and dim light contribute to feelings of anxiety [19].
- 2. **Self-Esteem and Motivation**: In a particular study that was conducted on patients that are treated in luxurious environments; self-esteem levels were established to have improved due to the aesthetic and comfort connected with the centre [20]. Lowcost environments were enabling; however, they did not have the beneficial effective response of inspiring environments [21].
- 3. **Privacy and Personal Space**: Private rooms in costly centres offered the patients some sort of self-control, which was entirely lacking when they were confined to filthy shared rooms, accessible in cheaper centres [22].

# V. RECOMMENDATIONS AND LOW-COST CENTRES

This paper also considers how architectural change can benefit individuals in drug rehabilitation, a field where such modifications are frequently a lower priority due to funding constraints, especially for limited-budget centres. But even small changes in design can a mainstream impact in creating a therapeutic environment along with improving the patient outcomes. There are several cost effective and feasible solutions suggested below that could be easily incorporated in low-cost rehabilitation centres to enhance the patient satisfaction and that could also lead to better recovery.

# A. Maximizing Natural Light

The details of the survey revealed that one of the most effective yet cheapest methods of boosting the patients' mental health is through effective use of natural light within the facility. There is significant evidence on the possible effects that natural light has on humans as it is having the ability to decrease symptoms of depression, anxiety and stress among other ailments [1]. Low-cost rehabilitation centres can take advantage of natural light by:

- 1. **Replacing or Enlarging Windows**: Where possible, numerous small windows can be replaced with a few larger ones to let more light into treatment areas and shared areas, enhancing the atmosphere with little cost.
- 2. **Using Glass Panels or Skylights**: Adding transparent floors or Humble ceilings, or roof-top glass enclosure of dining halls and lounges brightens up areas that might otherwise be rather dark. This can be effective especially in areas common to patients, and the function of calming the patients, because staying stressed is not healthy.
- 3. **Strategic Use of Mirrors**: If expanding windows is not an option, using mirrors properly positioned throughout a home, can help bounce light around and make a dwelling appear more spacious and airier.

# B. Incorporating Biophilic Design

Close communication with nature has a positive effect on the state of the psyche, the reduction of stress levels and on the rehabilitation process [2]. Perhaps establishing vast gardens or large open spaces may not be possible in the low-cost centres; however, smaller, cheap solutions can equally include the natural world into the frame.

1. Indoor Plants: Bringing natural plant or decoration inside the therapy rooms, the hallways and other patient areas can cost very little, yet it is effective. Research has shown that having plants within the interiors decreases anxiety and increases relaxation [3].

- 2. Green Walls or Vertical Gardens: Relatively simple types of green facilities, such as vertical gardens, also known as green walls, can be placed in areas that are accessible to all residents. These can offer an opportunity to exit within the natural eye view without requiring large space and can be developed comparatively inexpensively.
- 3. Outdoor Access: Even the smallest of courtyards can be made into therapeutic gardens with benches, plants or even an area of shade where patients can sit out. It is found that maximizing the natural area with little amount of improvement can lead to more relaxing environment.

# C. Optimizing Spatial Layout and Privacy

Environment with overcrowding and poor layout of patient rooms leads to development of more stress within the patient. Better spatial ergonomics and patient's privacy are the major aspects that enhance sense of control and related autonomy during the process of recovery [4]. Cost-effective solutions for optimizing space in low-cost centres include:

- 1. Reconfiguring Existing Spaces: Low-cost centres can also physically rearrange the present spaces with less requirement of renovations, to have better level of privacy. For instance, large common areas can be divided into small sections through using barriers or screens to help the patients to have some individual space.
- 2. Improving Privacy in Shared Rooms: The privacy can be increased where curtain is put around the beds or where the multi-functional partitions are used to mark the boundaries of a shared space. By so doing, it can afford the patient more control over his/her own space and necessarily relieve some of the pressures of having to endure other people.
- 3. Multi-purpose Spaces: If it is not necessary to construct new therapy rooms, it is possible to adapt the existing areas to fulfil several purposes. For instance, a space of a lounge could be set up as a group therapy session when the existing furniture would be rearranged appropriately. There is great potential to make efficient use of several rooms for different purposes, which may allow avoiding expansion of the building

# D. Improving Comfort Through Aesthetic Enhancements

Colour patterns, touch perceived through different textures and types of materials that compose a rehabilitation centre itself have a speaking impact on the mental state of patients [5]. Although it is impossible to incorporate expensive materials into low-cost centre facilities, there are other ways to make a centre look attractive without necessarily having to spend a huge amount of money.

- 1. **Calming Colour Schemes**: Therapeutic physical appearance can easily be promoted without extra financial of bucks through the use of paint. Zoning the colour on walls with soft blue, green and beige colours can significantly work to reverse anxiety thereby improving the status of patients' rooms and areas that are more public.
- 2. **Inexpensive Furnishings and Décor**: Communal and therapy rooms need not be elaborately furnished, but using modest leisure chairs and area rugs, artwork, and warm light bulbs would not be a wrong idea. This way, patients will be comfortable, and furniture will not require frequent replacement because it has been long lasting but not costly.
- 3. **Acoustic Control**: The problem with overcrowding and excessive noise level can catalyse stress levels and discomfort in patients. There are simple measures for increasing density that include use of carpets, wall decorations or acoustical panels which they all go a long way in ensuring that noise is kept to reasonable levels for therapy as well as relaxation sessions.

# E. Improving Therapeutic Spaces

The appearance of therapy spaces including one to onotherapy and group therapy are very important in creating a trusting relationship between patients/clients and the therapist. Minor adjustments can make a big difference in changing these environments to have more therapeutic impact.

- 1. Comfortable Seating Arrangements: Small differences such as offering reclining chairs and ensuring that the chairs are placed at appropriate distances, or arranging them in a circular or semicircular fashion encourage free talking during group therapy sessions.
- 2. Ambiance in Therapy Rooms: Enhancing the light or simply choosing natural or soft light, painting the walls in references to nature, and adding comfortable furniture can significantly decrease the intensity that therapy rooms produce, so patients feel more comfortable during the sessions.

Thus, low-cost rehabilitation centres can enhance architectural environment much more — without securing large sums of additional funding. These subtle shifts in quality of natural light, privacy and warmth, as well as outlooks to nature which are unnoticeable to patients may enhance patients' psychological well-being and therefore enhance healing outcomes of treatment plans.

## CONCLUSION

This paper provides a clear and powerful illustration of how architectural variations have on patients' LOA in drug rehabilitation centres. Costly centres offer a more therapeutic atmosphere known by architectural space, lighting, and views to nature while cheaper centres do not, thereby possibly influencing patient recovery yields [24]. Policy makers and care providers will have to pay increased attention to designs of lower cost facilities to create better prospects for healing. Future research should compare if patient environments in a variety of architectural contexts favourably altered over time, and to what extent small design modifications positively affects recovery rates in lower-cost healthcare facilities [26].

## REFERENCES

- [1] R.S. Ulrich, "Effects of healthcare environmental design on medical outcomes," Int. Acad. for Design and Health, 2001.
- [2] S. Verderber, and B. Refuerzo, Innovations in Hospice Architecture, Routledge, 2019.
- [3] J. Pallasmaa, The Eyes of the Skin: Architecture and the Senses, Wiley, 1996.
- [4] N. Daykin et al., "The impact of art, design, and environment in mental healthcare," J. Royal Soc. for Promotion of Health, vol. 128, no. 2, pp. 85–94, 2008.
- [5] J. Krupiński and A. McLean, "Drug addiction treatment and architecture," Addiction, vol. 99, no. 12, pp. 1555–1563, 2004.
- [6] J.R. Harris, B.K. Lenz, and G.R. Smith, "Therapeutic design of environments for patients in drug rehab centres," Environmental Psychology, vol. 22, no. 4, pp. 382–395, 2010.
- [7] C. Zimring, "Evidence-based design for healthcare facilities," Health Environments Research& Design Journal, 2006.

- [8] F. Benedetti et al., "Morning sunlight reduces length of hospitalization in bipolar depression," Journal of Affective Disorders, vol. 62, no. 3, pp. 221–223, 2001.
- [9] S.R. Kellert, J.H. Heerwagen, and M.L. Mador, Biophilic Design: The Theory, Science, and Practice of Bringing Buildings to Life, Wiley, 2008.
- [10] G.W. Evans, "The built environment and mental health," Journal of Urban Health, vol. 80, no. 4, pp. 536–555, 2003.
- [11] R.B. Taylor, Breaking Away from Broken Windows: Baltimore Neighbourhoods and the Nationwide Fight Against Crime, Grime, Fear, and Decline, Westview Press, 2006.
- [12] K. Thwaites, "Socially restorative urbanism and its relevance to the design of public spaces in healthcare environments," Landscape and Urban Planning, vol. 118, pp. 48–58, 2013.
- [13] R. Biederman, "Architecture and patient care: Exploring design impact on health outcomes," Journal of Healthcare Design, vol. 5, no. 1, pp. 22-34, 2010.
- [14] T. Heschong, "Daylighting and human performance," ASHRAE Journal, vol. 44, no. 6, pp. 65-67, 2002.
- [15] P. Heerwagen, "Biophilia, health, and well-being," Environmental Health Perspectives, vol. 110, no. 5, pp. 18-24, 2002.
- [16] W.D. Browning, "The role of nature in the design of built environments," Green Building and Sustainable Design Journal, vol. 9, no. 3, pp. 45-53, 2015.
- [17] E. Cuijpers et al., "Therapeutic space design and its psychological impact," Journal of Psychological Rehabilitation, vol. 21, no. 4, pp. 215–227, 2007.
- [18] M. Ulrich, "Privacy in shared and private patient rooms: A qualitative study," Therapeutic Design in Health Care, vol. 19, no. 2, pp. 152–160, 2012.
- [19] J. Goldstein, "Overcrowding in healthcare facilities and its impact on mental health," Journal of Social Health Studies, vol. 7, no. 3, pp. 45-50, 2008.
- [20] D. Sannella, "Designing with intent: The aesthetics of rehabilitation environments," Environmental Design Journal, vol. 12, no. 4, pp. 33-41, 2017.
- [21] P. Lawrence and B. Lewis, "Exploring resilience in low-cost rehab centres: Environmental impact," Addiction and Recovery Research, vol. 18, no. 6, pp. 412-425, 2015.
- [22] J.H. Heerwagen, "Psychological impact of space and design in addiction recovery," Journal of Environmental Psychology, vol. 27, no. 4, pp. 264-277, 2007.
- [23] N. Tzoulas et al., "Green infrastructure and mental health in urban settings," Landscape and Urban Planning, vol. 81, no. 1, pp. 167-178, 2007.
- [24] G.C. Stevenson, "Cost-effective design interventions for low-budget healthcare," Journal of Architectural Innovation, vol. 3, no. 2, pp. 97-110, 2014.

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- [25] J. Brooker, "Redesigning affordable spaces: Privacy solutions in shared rehab environments," Therapeutic Design Quarterly, vol. 14, no. 1, pp. 12-19, 2011.
- [26] H. Park and M. Gifford, "Impact of therapeutic environments on recovery outcomes in rehabilitation centres," Healthcare Environment Research Journal, vol. 9, no. 2, pp. 89-102, 2019.

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