

APPLYING THE PRINCIPLES OF THERAPEUTIC ARCHITECTURE IN THE DESIGN OF A DRUG REHABILITATION CENTRE.

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Keywords

Architecture, Drug Rehabilitation Centre, Salutogenic Design, Patient-Centred Design, Case Study Analysis.

ABSTRACT

The concept of therapeutic architecture is gaining recognition for its potential to promote healing and well-being in healthcare environments, especially in drug rehabilitation centres. This paper explores the principles of therapeutic architecture and its application in the design of drug rehabilitation facilities. The study draws on the salutogenic theory, which emphasises factors that promote health and well-being, to inform the design strategies that support the recovery process.

The literature review examines the role of therapeutic architecture in creating healing spaces and its alignment with the principles of salutogenesis. Nature-based elements, such as green spaces and natural light, have been shown to reduce anxiety and improve mood, making them crucial in drug rehabilitation centres. Colour therapy is also considered for its impact on emotions and psychological well-being. Flexible and adaptable design features are highlighted to cater to individualised treatment approaches.

Two case studies, the Sister Margaret Smith Addictions Treatment and the Rehabilitation Groot Klimmendaal, are analyzed to demonstrate the application of therapeutic design principles in drug rehabilitation centres. These case studies exhibit how open spaces, privacy, fenestrations, colour, and supportive social spaces contribute to creating a healing environment.

The research methodology used a descriptive case study approach to understand the principles of therapeutic architecture in drug rehabilitation centres. The data presentation, analysis, and discussion highlight the significance and impact of the proposed drug rehabilitation centre's design components.

In conclusion, therapeutic design in drug rehabilitation centres can significantly impact the recovery process by providing a supportive and healing environment. Incorporating nature-based elements, flexible spaces, and patient-centred designs can empower individuals and improve their treatment outcomes. By embracing these principles, drug rehabilitation centres can create environments that promote well-being, engagement, and sustained recovery from addiction.

1.0 Introduction

A rehabilitation is a place or setting where therapy and medication are given to rehabilitees, individuals who leave society for a variety of causes. Some people could have a sickness or accident that temporarily impairs their ability to function, while others might struggle with addiction. A support network is offered by a rehabilitation facility to assist in helping people reclaim their place in society. The term therapeutic architecture exemplifies the use of dreams and prospects of designing an exquisite architectural space that promotes healing. Oftentimes, individuals with drug addiction may run away from a drug rehabilitation centre due to factors such as resistance to change, fear of withdrawal, lack of control,

peer pressure, stigma and shame, lack of motivation, and even failed attempts. However, the structure and environment of a rehabilitation centre play a significant role in whether individuals with drug addiction choose to run away or stay. Some contributing factors may include:

1. A restrictive environment can make residents feel confined and, they may be more inclined to run away to regain a sense of freedom if they perceive the environment as being punitive
2. Lack of privacy in the form of shared sleeping quarters or constant supervision may cause Individuals who value their privacy to want to leave to regain their personal space, Powell et al. (2007) .
3. A lack of comfort that stems from Inadequate Amenities can cause individuals with drug addiction to leave in search of better living conditions.
4. Individuals with drug addiction sometimes feel that they are not receiving effective or personalized treatment and, they may become frustrated and disillusioned with the rehabilitation process, O'Connor et al. (2019). This dissatisfaction can lead to a desire to leave in search of more suitable treatment options.

Not all rehab facilities offer the same treatment approaches. Some individuals may not resonate with the specific therapeutic methods or philosophies of a particular facility, leading them to seek treatment elsewhere. However, the therapeutic architecture principles have been suggested as a catalyst for aiding recovery which are often inadequately considered in the design of health and medical centres (Blair, 2014) hence, the need to research and examine these therapeutic architecture design principles in the design of drug rehabilitation centres. Therefore, the article will focus on the following areas:

1. How can spaces be created to support patients' recovery process while also providing an atmosphere for social connections, support networks, and a sense of community among patients,
2. Investigating the relationship between man and his environment as a way of evoking emotions by engaging the senses and creating a connection with architecture,
3. Investigating the healing effects of natural elements in mood alleviation and its contribution to a more supportive and calming atmosphere.

Rehabilitation centres need to address these issues by providing a supportive, respectful, and patient-centred environment. whose structure and atmosphere align with the patient's needs and preferences for effective rehabilitation. The de-institutionalisation of rehabilitation centres is one way this can be achieved, by moving away from the usual formal rectilinear layout (Golembiewski, 2017).

2.0 Literature Review

2.1The Concept of Therapeutic Architecture

It The concept of therapeutic architecture is based on the belief that the environment in which individuals reside, particularly its design, profoundly impacts their emotional well-being. This influence is particularly significant for drug addicts who grapple with mental distress related to denial, declining cognitive abilities, and withdrawal symptoms (Abdelhay, Mona & Dewidar, Khaled, 2016)

Therapeutic architecture, according to Morgenthaler (2015), does not imply that the building itself can cure the sick or rehabilitate instead, the architectural adjustment of the structure with spaces that can accommodate environmental aspects like sound, illumination, view, and fragrance; many of which contributes to a therapeutic healing setting.

Golembiewski (2017) in his interpretation of Antonovsky's 1996 salutogenic theory, suggests that an understanding of the Sense of Coherence model (which constitutes a general resistance resource that enhances comprehensibility, manageability, and meaningfulness.) provides an avenue for improved health by leveraging on the modifications to the

aesthetic design within healthcare environments. thus, dynamically increasing the ability to adapt to life's changing circumstances.

2.2 Salutogenesis and Therapeutic Design

Salutogenesis is a theoretical framework that focuses on understanding factors that promote health and well-being rather than solely focusing on the origins of diseases or problems (Antonovsky, 1996). It emphasises the importance of empowering individuals to actively engage in their health and well-being (Antonovsky, 1996) While there is a limited number of specific studies exploring the direct relationship between salutogenesis and therapeutic design in drug rehabilitation centres, it is evident that the underlying principles of salutogenesis align with the goals and strategies of therapeutic design.

Therapeutic design in drug rehabilitation centres can be seen as a practical application of salutogenic principles, as it aims to create environments that support and enhance the recovery process (Burls, 2000). Salutogenesis emphasises the concept of a sense of coherence, which includes three components: comprehensibility, manageability, and meaningfulness. Comprehensibility refers to understanding and making sense of one's situation, manageability relates to feeling capable of managing challenges, and meaningfulness refers to finding purpose and significance in life experiences (Antonovsky, 1996). This sense of meaning is what propels life forward, providing the determination to combat the destructive impact of lifestyle diseases and the inescapable reality of mortality (Golembiewski, 2017).

Individuals derive meaning from diverse social groups, various causes, and matters of importance, often holding strong disagreements regarding the prioritization of these matters. However, it is within these differences that people discover the foundation of their identity. Without this sense of identity, individuals would feel completely devoid of purpose and lack any motivation to take action (Frankl, 1963; Searles, 1966, 1990 as cited in Golembiewski, 2017). The factors responsible for causing maladaptive conditions, commonly known as lifestyle diseases, are referred to as 'stressors'. A support network is offered by the facility to assist in helping patients move past the negative social and health consequences, and reclaim their lives and place in society.

(Antonovsky 1987, as cited in Golembiewski, 2017). However, an architect who possesses knowledge of salutogenesis can extend their capabilities by focusing on how design can positively impact a patient's resources for recovery (Golembiewski 2010).

Further emphasising the effects of architecture as not only physical but, also psychological with the tendency to affect mood, as well as a person's mental state and general well-being (Golembiewski 2013). Therapeutic design can contribute to enhancing these components by creating environments that promote clarity, provide support, and foster a sense of purpose (O'Connor, Barr, & Finch, 2019). For example, clear signage and wayfinding systems in drug rehabilitation centres can improve comprehensibility, while well-designed spaces for therapy sessions can enhance the manageability and meaningfulness of the recovery process.

Therapy sessions that include participating in activities, learning new skills, etc. Will occupy most of the patients' time. When these skills are acquired, the risk of relapse is reduced, as each patient's journey is unique and personal. Knowledge acquisition is not a requirement, but rather a voluntary action. To survive, one must learn (Edwards, 1950). The inclination to engage in drug use diminishes, and the facility prevents patients from accessing psychoactive substances thus, their journey towards recovery is safeguarded, as they (patients) strive for individual growth and achievements. Therefore, the architectural modifications in rehabilitation centres should work to aid the therapeutic tendencies and/or effects of the facilities, to improve adaptability to these stressors.

2.3 Therapeutic Design in Drug Rehabilitation Centre

Therapeutic design in drug rehabilitation centres refers to the intentional and thoughtful arrangement of physical spaces and environments to support the recovery process and enhance treatment outcomes for individuals undergoing drug rehabilitation. Individuals struggling with drug addiction often display a range of atypical behaviours, including isolation from their friends and family, involvement in criminal activities, and encountering challenges in their work or academic settings (Abdelhay and Dewidar, 2016).The therapeutic design approach recognises the important connection between a

person's surroundings and their overall well-being and aims to create environments that promote healing, comfort, safety, and engagement.

Architectural designs that integrate natural elements, both indoors and in the external surrounding landscape, have notable therapeutic benefits for individuals (Abdelhay and Dewidar, 2016). According to Ulrich et al. (2008), nature-based elements, such as green spaces, natural light, and views of nature, can promote relaxation, reduce anxiety, and improve mood. Integrating these elements into the design of drug rehabilitation centres can contribute to a more supportive and calming atmosphere, aiding in the recovery process. According to Chrysikou (2014), colour therapy has been recognised as a method capable of improving mood and alleviating stress, as its impact extends beyond aesthetic aspects and has emotional and psychological effects by stimulating the nervous system. This concept can be implemented in rehabilitation centres where drug patients often experience elevated stress levels and fluctuations in mood. Therapeutic architecture should encompass more than just the selection and use of colours; it should also take into account altering the perception of space, engaging the sense of sight, evoking emotions, and ensuring the use of high-quality colours (Abdelhay and Dewidar, 2016). Lighting and soundscape design have also been considered to improve health outcomes for patients. (Hurst 1960, as cited in Golembiewski, 2017),

2.4 The Principles of Therapeutic Architecture

Therapeutic architecture, also known as healing or therapeutic design, involves creating healthcare environments that promote healing, well-being, and positive patient outcomes. While there is no standard set of principles that universally defines therapeutic architecture, several key concepts and principles are commonly emphasised by designers and healthcare professionals to create healing spaces. Some of these principles include:

2.4.1 Open Spaces

Creating open spaces and/or therapeutic environments is crucial for individuals in the process of recovering from drug addiction. According to Ulrich et al. (2008), nature-based elements, such as green spaces, natural light, and views of nature, can promote relaxation, reduce anxiety, and improve mood. Integrating these elements into the design of drug rehabilitation centres can contribute to a more supportive and calming atmosphere, aiding in the recovery process.

2.4.2 Privacy and Confidentiality

Respecting the privacy and confidentiality of patients is crucial in drug rehabilitation. Design features that prioritise individual privacy, such as separate rooms, soundproof walls, and confidential counselling spaces, are important to create a sense of safety and trust. Research by Powell et al. (2007) highlights the significance of privacy in therapeutic settings, emphasizing that it enhances the therapeutic relationship between patients and staff and encourages open and honest communication.

2.4.3 Fenestrations

Research by Ulrich (1984) reveals that patients in rehabilitation facilities experience accelerated healing when their rooms offer direct views of the outside world, as opposed to having views limited to empty walls. Patients who have access to nature through their senses, including sight, touch, hearing, and smell, such as feeling the cool breeze, witnessing picturesque sunsets, listening to bird songs, and enjoying the pleasant fragrance of blooming flowers, require fewer pain medications compared to those in windowless rooms.

2.4.4 Flexibility and Adaptability

Flexibility in the design of drug rehabilitation centres allows for individualised treatment approaches and the accommodation of changing needs over time. According to O'Connor et al. (2019), flexible spaces that can be easily adapted to different treatment modalities and programs contribute to a sense of empowerment and autonomy among patients. This adaptability can enhance engagement in therapy and increase the likelihood of successful recovery.

2.4.5 Colour

The subconscious mind of a patient is significantly influenced by colour, as simple redecoration, such as changing furniture style, floor covering, and colour scheme, can have a positive impact on perceptions of the social settings, reduced psychopathology, and a desirable atmosphere (Vaaler, Morken, & Linaker 2005). Colours can affect all parts of our lives, including our emotions, levels of energy, and even our mental health, according to the theory behind colour therapy (Chrysikou 2014). Investigations into different colours reveal that vibrant hues can elevate blood pressure, activate autonomic functions, and increase pulse rate, thereby drawing attention outward. On the other hand, darker and more muted colours have a calming effect, directing attention inward (Chrysikou 2014). This concept can be applied to rehabilitation centres where drug patients seem to suffer from high-stress levels and mood changes.

2.4.6 Supportive Social Spaces

Creating social spaces within drug rehabilitation centres is vital for fostering social connections, support networks, and a sense of community among patients. These spaces can include group therapy rooms, communal dining areas, and outdoor gathering spaces. A study by Jason et al. (2018) highlights the positive impact of social support on recovery outcomes, emphasizing that the availability of supportive social spaces facilitates peer-to-peer interactions and reduces feelings of isolation.

2.4.7 Safety and Security

Ensuring the safety and security of patients is paramount in drug rehabilitation. A study by Zulkarnain et al. (2021) underscores the importance of a safe environment in addiction treatment facilities, emphasizing that it promotes a sense of trust and facilitates a focus on recovery rather than safety concerns. The design should incorporate features such as controlled access, well-lit areas, and clear sightlines to enhance supervision and prevent potential risks.

2.4.8 Patient-Centred Design

Salutogenesis emphasises the importance of empowering individuals and involving them in decision-making processes related to their health (Schwarzer, 1992). Similarly, therapeutic design aims to create spaces that promote patient autonomy, choice, and participation (Schumacher, Hall, & Davis, 2018). By involving patients in the design process or providing opportunities for personalization of their living spaces within drug rehabilitation centres, individuals are empowered to take an active role in their recovery journey. This sense of empowerment and participation can contribute to improved treatment outcomes and overall well-being.

3.0 Research Methodology

A descriptive case study research approach was used to understand the principles of therapeutic architecture in the design of a drug rehabilitation centre; by describing particular aspects of therapeutic architecture, analysing it in terms of theoretical categories and how best it will work in praxis.

4.0 Case Study

4.1 Sister Margaret Smith Addictions Treatment Centre

Architect: Kuch Stephenson Gibson Malo Architects and Engineer + Montgomery Siam architects

Area: 52000 ft²

Year: 2009

The Sister Margaret Smith Addictions Treatment. This provides both residential and non-residential services for the treatment of addictions including drugs and alcohol, gambling and eating disorders among others.

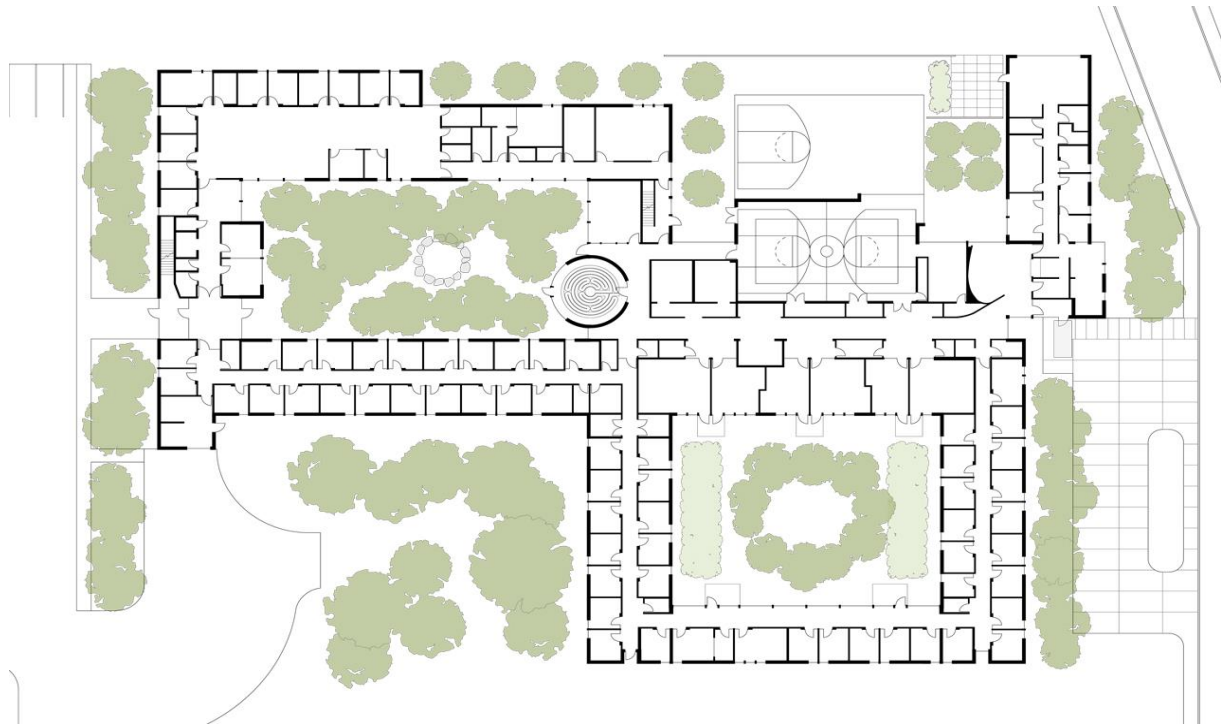


Fig. 4.1: Floor plan of the Sister Margaret Smith Addiction

Source: archdaily.com (2011)

The design creates a clear sequence of spaces which offer a variety of relationships to the exterior landscape area. The quality of natural light has been a prime consideration throughout the purpose of the design.



Fig. 4.2: The circular interior of the Hall of Recovery

Source: archdaily.com (2011)

The "Hall of Recovery" is where the clients are introduced, welcomed and oriented to this dignified calm and welcoming setting.



Fig. 4.3: Colourful Exterior of the Hall of Recovery

Source: archdaily.com (2011)

The building has been arranged around two landscaped courts the other for non-residential clients. Both courts provide a safe environment used for the cause of therapeutic programmes. The space for spiritual gatherings is designed in a circular form to make up for a larger client population.



Fig. 4.4: Sports Area of the Facility

Source: archdaily.com (2011)



Fig. 4.5: The entrance to the facility

Source: archidaily.com (2011)

4.1.1 Significance and Impact

1. The organising spine of the building called the Hall of Recovery, is where clients are introduced and oriented to this dignified, calm and welcoming setting.
2. The building has been arranged around two landscaped courts: one for residential patients and the other for non-residential patients. Both courts provide a safe environment and are used for various therapeutic programmes. The spiritual space has been designed in a circular form to be respectful of the Aboriginal community, who make up a large portion of the client population.
3. The residential program is divided into 15 beds for females, 15 beds for males and 10 beds for youth, including children as young as 13 years. The residential programs and non-residential programs have separate entrances to protect the privacy of each non-residential program including private and group therapy rooms, a gymnasium, a spiritual room, a craft room and administration.
4. The project embodies five key sustainable design strategies which are: ample glazing to provide daylight and access to views, building footprint that respects the site ecology, water reduction through intelligent landscaping and selection of low-flow fixtures, energy reduction through the use of a high-performance envelope and advanced building technology and communication of sustainable vision through integrated sustainable design meetings.
5. The project's holistic sustainable intentions are most evident in the main hall of the building known as the Hall of Recovery which organises the three main components of the program in a dignified, calm, welcoming and comforting setting. Three large round roof windows providing streams of natural light represent the windows of hope: one for each of the mind (therapy rooms), body (gymnasium) and soul (spiritual space).
6. Low-maintenance native seed mixes and sodding were chosen to reduce the need for irrigation and seasonal replanting.

4.2 Rehabilitation Groot Klimmendaal, Netherlands.

Architect: Architect en Bureau, Koen van Velsen.

Area: 14000M2

Year: 2011.

Location: Gemeente Arnhem, Netherlands.

The Rehabilitation Groot Klimmendaal is a gorgeous glass-clad building that sits tucked amongst trees in its natural surroundings in the Dutch forest. The brown-golden anodised aluminium facade, despite its size, allows for the nearly 14,000 sqm building to blend in with the natural surroundings. It was designed by Architects en Bureau, Koen van Velsen BV in the year 2011.



Fig 4.6: Rehabilitation Center Groot Klimmendaal from the Dutch Forest.

Source: Hart (2011)

The Rehabilitation Groot Klimmendaal is part of a Master plan which was designed by Koen van Veelsen. This master plan covers the area of the site largely built upon by one and two-story buildings, transformed into a public park landscape.



Fig 4.7: Rehabilitation Groot Klimmendaal

Source: Hart (2011)



Fig. 4.8: Showing Fenestration and the use of light and colours on the Groot Klimmendaal Rehabilitation.

Source: Hart (2011)

"Groot Klimmendaal" the revalidation radiates the self-control and self-confidence of the facility. The welcoming and open environment offers a natural habitat or place for care at the same time allows for activities and creates an opportunity for other activities.

The Rehabilitation Groot Klimmendaal creates a positive and stimulating environment that increases the well-being of the patients or rehabilitates thereby having a beneficial effect on their revalidation processes. The outlook of the project was not to create a positive and stimulating health building while being integrated into the surrounding and the community.

The project arrangement or program is clear. The ground floor plan holds the offices while the next floor has the clinical areas. On the roof of the Groot Klimmendaal is the Ronald McDonald House (a charity organisation) with its own identity. The double-height ground floor at the entrance level facilitates the special elements of the programme facility such as the sports facility, which includes, the fitness area, swimming pool, restaurant and the theatre. Not only for patient's care but also their family members and members of the community (schools, theatre groups, etcetera) use these facilities regularly. As a result, both the patients and the buildings are placed at the facility.



Fig. 4.9: Lobby leading to the clinical area of the rehabilitation centre.

Source: Hart (2011)

The building layout of the facility eradicates the prison mentality alongside the institutional rehabilitation and psychiatric facilities but, there are no measures taken whatsoever to protect the patients from themselves. The presence of natural lighting and good ventilation using full heights glazing also creates strong visuals of nature, contributing to a more supportive and calming atmosphere, and aiding in the recovery process. Countering this positive development is the unavailability of detoxification services for drug addicts.

4.2.1 Project Significance and Impact

1. The facility is clad in brown anodised aluminium panels, and despite its size, makes the building dissolve within its surroundings.
2. Sited in the first of Arnhem, in the Netherlands, the curtain walls and full-height glazing invites the forest into the building, giving the users a constant view of nature.
3. The building hosts multiple leisure and recreation facilities which helps the patients with their reintegration process.
4. The facility interiors emphasise reducing the patient's anxiety and distress through the use of diverse but subtle colours.
5. The building hosts double and triple heights plus atriums at different levels further increasing the amount of natural light entering the building and visually connecting different levels.
6. The structure is irregular and diverse in most of the columns. However, the columns in the southern facade are instead inclined steel columns adding aesthetics to the double-height area.
7. The use of energy is reduced by the compact design of the mechanical and electrical installations.
8. The choice of selecting sustainable building materials and the materials requiring little maintenance for floor finishes, ceilings and facade cladding result in a building which can easily be maintained and with a long lifespan.

5.0 Data Presentation, Analysis and Discussion

Drug Rehabilitation facilities typically include services for adaptation, rehabilitation, social integration, accompaniment, and support for friends and family. As needed, these services may be offered on the premises of the, at a school, place of employment, a house, etcetera (Gamble et al, 2014).

According to NIDA (2004), drug rehabilitation is categorised as follows:

5.1 Inpatient or Residential Centre:

Residential or inpatient drug rehabilitation occurs in facilities where individuals reside throughout their treatment period. Some choices may include

1. Patient 28-30 days stay
2. Patients 60-90 days later

The duration and intensity of treatment varies and observation may include intensive care and group therapy. Provide patients with a quiet place to encourage reflection, healing and recovery.

5.2 Outpatient Centre:

For people with less severe drug use disorders, less expensive outpatient therapies are the best option. They are more useful for individuals who cannot afford inpatient therapy because of this. Furthermore, outpatient treatments are a practical choice when individuals need to remain at home due to work or family commitments. With outpatient care, patients do not reside at the institution, which is a significant distinction between both programs. After each day, they return home or to a sober living facility. It should be noted that different outpatient programs may have different treatment schedules and lengths of time. It can take anywhere between several hours of therapy each week and just one or two quick sessions.

5.3 Intensive Outpatient Centre

For those who need more structure and support than what a standard outpatient treatment program may provide. It is likened to an intense outpatient drug misuse therapy mostly assigned to patients discharged from inpatient therapy.

5.4 Basic Components of the Proposed Drug Rehabilitation Centre

Drug rehabilitation centres should simply consist of the following:

1. Administration and Assessment

This is the first point of contact with the public or visitors. It also houses all the core administrative activities of the facility. It features a reception/ waiting area which flows into spaces where inquiries and first-time assessment and counselling activities occur.

2. Detox Facilities

Detox facilities, also known as detoxification centres or detox clinics, are specialised healthcare facilities that provide medical and psychological support to individuals who are experiencing withdrawal symptoms after discontinuing the use of drugs or alcohol.

3. In-Patient Residence/Rehab Facilities

An In-Patient Residence/Rehab Facility, also known as an inpatient rehab centre or residential treatment centre, is a specialised healthcare facility where individuals with various physical, mental, or behavioural health conditions receive comprehensive and intensive treatment in a residential setting. These facilities offer a structured and immersive therapeutic environment, providing 24/7 care and support for the duration of the individual's stay.

4. Out-Patient Rehab Facilities

Outpatient Rehab Facilities, also known as outpatient treatment centres or clinics, are specialised healthcare facilities where individuals receive treatment for various physical, mental, or behavioural health conditions without residing on-site. Unlike inpatient rehab centres, patients in outpatient facilities do not stay overnight and instead attend scheduled therapy sessions and treatments while living at their own homes or in a suitable living arrangement.

5. Emergency Unit

Emergency Unit refers to a designated area or department that is responsible for handling and managing critical situations related to the physical and psychological well-being of patients undergoing addiction treatment.

6. Occupational Therapy and Reintegration Facilities

Occupational Therapy and Reintegration Facilities are specialised healthcare centres that focus on helping individuals regain functional independence and reintegrate into their daily lives after experiencing physical, mental, or emotional challenges. These facilities offer comprehensive occupational therapy services and support to improve individuals' abilities

to engage in meaningful activities and roles, enhance their overall well-being, and foster successful community reintegration.

5.5 Discussion

The concept seeks to embrace a new direction in the design of therapeutic environments and buildings in the mental health industry. The design forms strive to de-institutionalise the facility by moving away from the usual formal rectilinear layout (Golembiewski, 2017). The rehabilitative treatment shall for this purpose be categorised into two (2) parts the medical and non-medical treatment and on the other side treatments that fall under Reintegration.

With a de-institutionalised character and expression, the disposition of the structure is evident in its linear courtyard layout which is achieved through an orderly manner for which the building component is designed. In addition to this, the predominant use of highly therapeutic materials like wood in interior spaces and wood-mimicking panels on the external walls of the building brings a level of soothing feeling to the users of the facility. The generous use of glass panels especially in the patient's room, consultancy, and group therapy spaces will increase the quality of natural views from within the building.

6.0 Conclusion

In summary, therapeutic design in drug rehabilitation centres plays a crucial role in supporting the recovery process. By incorporating elements such as healing environments, privacy, flexibility, social spaces, and safety measures, these facilities can provide an optimal setting for individuals to embark on their journey towards sustained recovery from drug addiction.

While specific studies examining the relationship between salutogenesis and therapeutic design in drug rehabilitation centres are limited, the principles of salutogenesis align with the goals of therapeutic design to create environments that promote well-being, engagement, and recovery. Applying the principles of salutogenesis in the design process can contribute to a sense of coherence among individuals undergoing drug rehabilitation, enhancing their ability to navigate the challenges of recovery and ultimately achieve sustained well-being.

Acknowledgement

My sincere gratitude goes to God Almighty first and foremost for His grace and mercy, that enabled me to complete this work.

I want to express my gratitude to my supervisor, Arc. Ramota Obagah-Stephen, for her support and direction, Arc. Uchenna Paul for his immense contribution as well as to my design lecturer, Dr. T. D. Pepple, for his tolerance, and constant guidance. I also want to thank the Head of Department, Dr. Warebi G. Brisibe, as well as all of the lecturers and the entire staff of the department of Architecture at Rivers State University for their knowledge-transfer efforts.

Additionally, I would like to express my gratitude to my Mother, Mrs Ibe-Lucas Nkem, as well as my sponsor, Hon. Chidi Chinedu, who has supported me throughout my academic pursuit; my siblings, Onyinye, Chioma, Ebube and Oge, who have been there for me constantly reminding me I could do better; Engr. Michael Adegbite, who has also been a great source of support, Pst. John Ekoh, Dr. and Dr. (Mrs) Warebi for their prayer, love and guidance, Mrs. Enyadike for her well wishes, Mr and Mrs Nwaigwe, Iduemre Emonena for believing in me, always motivating me to do great and, last but not least, my friends; Ambrose Obene, Chijioke Treasure, Shalom Spiff, Barileela Vilawa and Chiorlu Chibuokem for their consistency in loving and supporting me; and many others I was unable to name, all of whom made different contributions to the program's success. I gladly appreciate you all.

I thank God Almighty for his unending love, guidance and protection.

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