



EMERGING TRENDS IN THE DESIGN OF
REHABILITATION CENTRES FOR ALCOHOL
AND DRUG ADDICTS



DEDICATION

To Almighty God for the gift of life, good health, strength and always answering my prayers.



University of Nairobi

UNIVERSITY OF NAIROBI
COLLEGE OF ARCHITECTURE AND ENGINEERING
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DEPARTMENT OF ARCHITECTURE AND BUILDING SCIENCE

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Your mind is a powerful thing. When you fill it with positive thoughts, your life will start to change.

-Anonymous-

DECLARATION

This thesis is my original work and has not been presented in any other University or Institution for the purpose of awarding a degree to the best of my knowledge.

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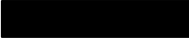
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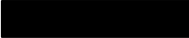


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ABSTRACT

Drug and alcohol addiction is a global issue which can be addressed using architectural interventions. The study of emerging trends in the design of drug and alcohol addicts is set to determine design considerations for the functional goals of buildings and fulfilling the unique emotional needs of patients with operational efficiency top of mind. This study is in line with Vision 2030 which is geared towards achieving Universal Healthcare under the Big 4 Agenda. Architecture and medicine are both dynamic. The treatment and rehabilitation techniques used in the past do not necessarily conform to current approved treatment. This study seeks to investigate design trends over the past 50 years in purpose built centres.

Buildings should be more flexible, accessible and convey an expression of diversity. This promotes quality of life. Several design parameters have been put on the scale where their need and efficiency have been measured. The design parameters analysed include: master planning, form, materiality, fenestrations, spatial analysis and outdoor spaces.

This research was conducted through a fieldwork study which involved different data collection techniques such as observation, interviews and measured drawings. This study has been analysed and presented using sketches, narratives, maps, tables, charts and photographs.

This study outlines findings from four case studies: two international (Belmont Community Rehabilitation Centre and Rehabilitation Centre Groot Klimmendaal) and two local (Tabaka Mission Hospital and The Retreat Redhill Rehabilitation Centre). The analysis of the findings have been guided by the aforementioned design parameters. The findings show that there has to be an understanding of the users and how to create a suitable healing environment. Rehabilitation centres should be planned and organised in a somewhat unique manner which guarantees security but does not give a feeling of confinement. Local materials which have acoustic properties are ideal to use in such facilities. This reduces the carbon footprint and cost of maintenance. Spaces should be zoned in order of privacy with the public spaces closer to the entrance and private spaces further away. Outdoor spaces have a therapeutic feel and should be well designed with appropriate street furniture for the users.

Based on the research findings, the author identified the emerging trends in the design of rehabilitation centres for alcohol and drug addicts and recommended relevant guidelines for improving rehabilitation centres in Kenya.

CHAPTER 1- INTRODUCTION



FIGURE 1-1: VISUAL REPRESENTATION OF DRUG ADDICTION GLOBALLY

Source:

<http://www.drugs.ie/resources/publications/globalreports/>

1.1 BACKGROUND OF STUDY

Rehabilitation centres are facilities in which people with drug and alcohol addiction and mental illness go to get help. Alcoholism and drug addiction is a menace in the society not just locally but globally. A survey conducted by the United Nations-World Health Organization (WHO) which was founded in 1948, estimated a death rate of 3.3 million people annually in 2016. That's about 5.5% of all global deaths attributed to alcohol consumption. The World Health Organization 2016 survey stated that 275 million people have used an illicit drug at least once with 31 million persons having drug use disorders. On average less than half the population; 38.3% drink alcohol meaning they consume an average of 17 litres of pure alcohol annually.

In general, the greater the economic wealth of a country, the more alcohol is consumed with a small number of abstainers.

(WORLD HEALTH ORGANIZATION (WHO) – Management of Substance Abuse; Introduction to the global perspective)

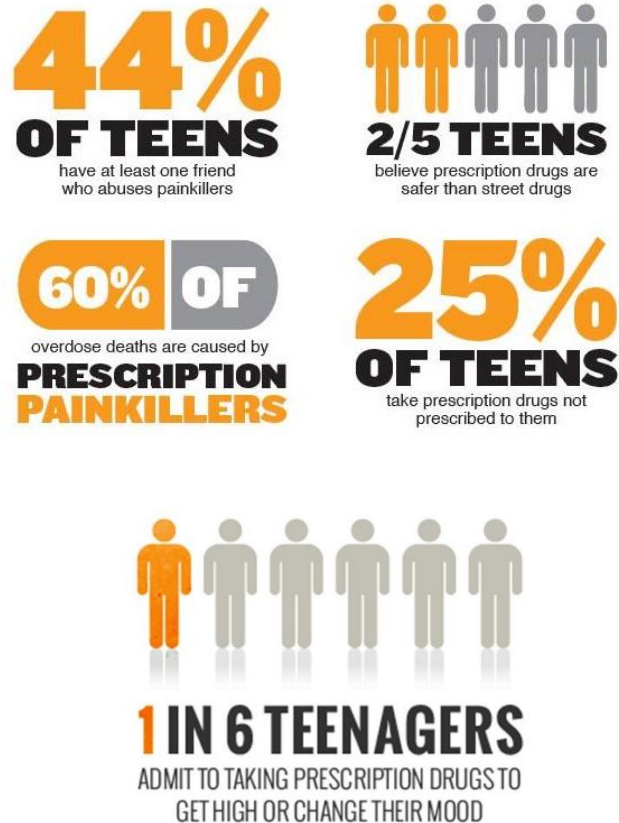


FIGURE 1-2: INFOGRAPHICS ON DRUG USE AMONG TEENAGERS IN KENYA

Source: NACADA Survey on drug facts-
www.nacada.go.ke

1.2 PROBLEM STATEMENT

Alcoholism and drug addiction has greatly affected the youth in the country. The National Agency for the Campaign Against Drug Abuse (NACADA) is a government institution that was formed in 2001. It supports the attainment of Kenya's Vision 2030 by recognizing the dangers that alcohol and drugs pose on the society. A survey conducted by NACADA states that there are at least 3.2 million people aged between 15 - 65 years who abuse alcohol and drugs. More than 6,000 individuals die annually due to alcohol related problems with illicit brews being the leading cause of deaths in the country.

(NACADA 2016 Survey--Alcohol Use in Kenya)

2.5 million People require professional intervention in form of treatment and rehabilitation. 40% of Kenyans between the age of 15-64 have tasted alcohol while 15% of Kenyans in the same age bracket consume chang'a. Rift valley, Central and Eastern region of Kenya have the highest alcohol consumption levels.

(Daily Nation July 4th 2015)

The NACADA 2016 survey states that alcoholism and drug addiction is a socio-environmental problem which can be solved through a design intervention. The architecture of a healing environment is unique. Healing and treatment spaces need to have a therapeutic and relaxing feel for the users. Just like any other trend, building technology is dynamic. Over the years design for healing and treatment spaces has transformed. This study seeks to investigate the emerging trends in the design of rehabilitation centres for alcohol and drug addicts.

If the design and construction of rehabilitation centres is not prioritized, the patients' treatment may fail because the design interventions of these facilities do not necessarily conform to the current approved treatment for the addicts.

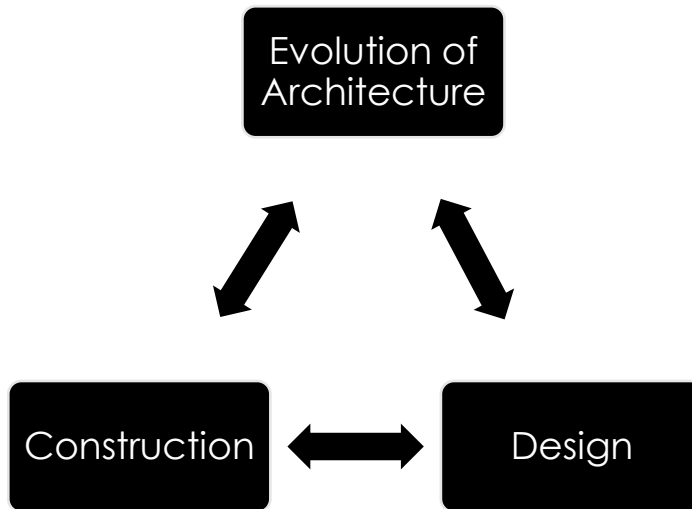


FIGURE 1-3: CHART SHOWING FACTORS THAT INFLUENCE EVOLUTION OF ARCHITECTURE

Source: Author

Over the years, the construction industry has had many changes. There has been some evolution both in design and construction of buildings in the last 50 years. Building technology has greatly transformed as some of the techniques used back in the 90's are not similar to those being used currently.

Evolution of architecture has brought about new trends in design and construction. This has also led to an undesirable healing environment. The treatment methods are dynamic so the patients do not get the recommended treatment. (See Figure 1-3)

Some of the evolved areas of design are;

- Spatial organization
- Built forms
- Building technology

Under spatial organization some of the emerging trends are;

- Way finding,
- Privacy
- Healing environment

Spatial organization and building technology lead to the built forms.

This study seeks to investigate the emerging trends in the design of rehabilitation centres for alcohol and drug addicts in the past 50 years.

1.3 RESEARCH OBJECTIVES

The main objective of this study is to determine the design considerations for the functional goals of buildings and fulfilling the unique emotional needs of patients with operational efficiency top of mind.

These are the research objectives of the study;

1. To establish the spatial requirements necessary for creating an ideal healing environment for drug and alcohol addicts.
2. To investigate healing environments for local purpose built rehabilitation centres in the past 50 years.
3. To propose guidelines for improving rehabilitation centres in Kenya.

1.4 RESEARCH QUESTIONS

The following research questions were considered;

1. What spatial requirements are necessary for creating an ideal healing environment for drug and alcohol addicts?
2. How have healing environments for local purpose built rehabilitation centres been designed in the past 50 years?
3. What are the recommended guidelines for improving rehabilitation centres In Kenya?

1.5 JUSTIFICATION OF STUDY

This study is in line with achieving Universal Healthcare which is under the *Big 4 Agenda* that is geared towards achieving *Vision 2030*. The findings of this study will be useful in creating an ideal healing environment for people with drug and alcohol addiction. This is not only a societal issue but an architectural one as the buildings we shape eventually shape us.

1.6 SIGNIFICANCE OF STUDY

Drug and alcohol addiction is a global menace. This study will help professionals and policy makers in the built environment set regulations and building codes that are geared towards designing functional healing environments for drug and alcohol addicts. The rehabilitation agenda is crucial as it impacts on the economic growth of the country at large. The rehabilitated population (mostly the youth) will get a chance to improve their well-being.

1.7 SCOPE AND LIMITATIONS

This study covered rehabilitation centres constructed in the past 50 years in Kenya. It focussed on healing environments and the effectiveness of the spaces in promoting healing.

There are 77 registered and licenced rehabilitation centres in the country with only 4 purpose built centres. Most of the rehabilitation centres are retrofits of either commercial or residential spaces. This study targeted purpose built rehabilitation centres as they gave a clear indication of the emerging trends in their design and construction. Further research on the problem may help in creating a suitable model for the design and construction of ideal healing environments for drug and alcohol addicts.

1.8 ORGANIZATION OF STUDY



CHAPTER 1

This is a preamble of the study that explains the social, economic and political issues. It explains what brings about the problem and why it exists but not the actual problem. It basically gives a background context of the study. Research objectives and questions of the study have been listed. Lastly, the significance and limitations of studying rehabilitations centres have been explained.

CHAPTER 2

This chapter critically looks at how other people have solved the problem. It is a review of secondary data and documented works done by other scholars. It has three main components; general literature, theoretical and conceptual frameworks. From the reviewed content design variables were determined which will be used in research analysis.



CHAPTER 3

This chapter contains theoretical procedures and statistical approaches to be used by the researcher in collecting samples. Generally, it encompasses the data collection techniques and analysis that the author intends to apply in the study.

CHAPTER 4

It outlines the analysis of the selected case studies. The case study selection criteria was based on the purpose built facilities only. Analysis of the case studies was based on the variables selected. From the critical analysis of the data collected, the emerging trends in the design of rehabilitation centres for drug and alcohol addicts has been determined.



CHAPTER 5

The final chapter outlines the conclusions drawn from the study. Recommendations on design considerations and government policies have been given on a suitable design model for rehabilitation centres. Lastly, it recommends further research should look into retrofitted facilities.

1.9 DEFINITION OF TERMS

1. Addiction

A condition of being dependent on a particular substance or activity for which the rewarding effects provide a compelling incentive to repeatedly pursue the behaviour despite detrimental consequences.

2. Healing environment

Any circumstance that promotes recovery from people in the direction of wholeness and healing.

3. Rehabilitation

The action or process of restoring someone to health or normal life through training and therapy after addiction or illness.

4. Special hospital

It is one which is devoted to someone or a group of related diseases, the treatment of which usually requires protracted periods.