**ASSESMENT ON THE CONTRIBUTION OF MEDICALLY- ASSISTED TREATMENT (MAT) IN SUPPORTING DRUG ADDICTED INDIVIDUALS: A CASE OF TUMBI CLINIC**

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**A DISERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SOCIAL WORK DEPARTMENT OF SOCIOLOGY AND SOCIAL WORK**

**OF THE OPEN UNIVERSITY OF TANZANIA**

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**CERTIFICATION**

The undersigned certifies that, he has read and hereby recommend for acceptance by the Open University of Tanzania a report of the research entitled ***“Assessment on the Contribution of Medically- Assisted Treatment (MAT) in Supporting Drug Addicted Individuals: A Case of Tumbi Clinic”,*** in partial fulfillment of the requirements for the Degree of Master of Social Work.



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**DECLARATION**

I, **Haruna Twaibu Msoke**, do hereby declare that the work presented in this research is original mine and has never been presented in any other University or Institution. Where other people’s works have been used, references have been provided. It is on this regard that I declare this work as originally mine. It is hereby presented in partial fulfillment of the requirements for the Degree of Master of Social Work.

……………………….……….

Signature

………………………………..

Date

# **DEDICATION**

This work is dedicated to my lovely family for their moral and material support throughout the completion of this research. They always showing enthusiasm which have given me encouragement and strengths to accomplish my research in a very peacefully way. May our Almighty’s grace and blessings be upon them now and forever.

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**Abstract**

The study was conducted at Tumbi Regional Referral Hospital, Kibaha Town Council, Pwani Region. The study aimed to assess the contribution of medically assisted treatment (MAT) in supporting drug-addicted individuals. The study focused on three main objectives: first, to determine the impact of Medically Assisted Treatment (MAT) in supporting individuals with drug addiction; second, to examine the challenges faced by MAT in supporting individuals with drug addiction; and Third, to assess the societal support available for individuals recovering from drug addiction. Guided by the System Theory, the study adopted an interpretivism philosophy and a case study design. A qualitative approach was employed, and data were collected through interviews, reaching saturation after interviewing 36 participants. The selection of the sample was done using purposive sampling techniques which is among non-probability method of selecting sample. Thematic content analysis was used to analyze the data. The study found three significant contributions of the MAT program in supporting drug-addicted individuals, including Health benefits and recovery, Improved family and social relationships, and Behavioral modification. Also, the study reveals moral and material support as a societal support mechanism to assist recovery. Lastly, the study revealed four significant barriers to MAT services: MAT regulations, social stigma, transport challenges, and financial difficulties. Therefore, MAT services are highly effective for supporting drug addiction due to significant general health development and mental health improvement among drug users. In that regard, the study recommends that stakeholders, hospital authorities, and the Ministry of Health Large should take charge in addressing the mentioned challenges since the benefits of this service are realistic not only to a single individual but to families, communities, society, and nation, as a whole.

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**LIST OF ABBREVIATIONS**

AIDS Acquired Immune Deficiency Syndrome

CDC Centre for disease Control and prevention

DCEA Drug Control and Enforcement Commission

FDA Food and Drug Administration

HIV Human Immunodeficiency Virus

LGA Local Government Authorities

MAT Medically Assisted Treatment

MoH Ministry of Health

NGO Non- Governmental organization

OUD Opioid use Disorder

SDGs Sustainable Development Goals

TDHS Tanzania Demographic Health Survey

UN United Nations

UNICEF United Nation International Children Emergency Fund

WB World Bank

WHO World Health Organization

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# **CHAPTER ONE**

**INTRODUCTION**

## 1.0 Chapter Overview

Substance abuse, particularly opioid addiction, is a global public health crisis with severe consequences for mortality, social structures, and economies. In response to the rising opioid misuse in Tanzania, the government has intensified efforts by establishing medically assisted treatment (MAT) clinics. Among these, Tumbi Clinic plays a crucial role in providing comprehensive care to help individuals overcome drug dependence. Understanding the effectiveness of MAT in facilitating recovery and improving patients' quality of life is essential, as it can provide the government and other stakeholders with valuable insights for formulating appropriate interventions to enhance MAT services.

## 1.1 Background of the Problem

This study aimed to assess the contribution of MAT programs in helping substance users recover from addiction, view their problems from a new perspective, enhance self-reliance, empower individuals to make life changes, improve self-esteem, and foster realistic hope. Substance abuse refers to the harmful or hazardous use of psychoactive substances, including alcohol and illicit drugs. It also includes cigarettes, illegal substances, prescription medications, inhalants, and solvents, as well as the intake of alcohol or drugs. Despite massive attempts to reduce the use of licit elements and prevent the use of illicit substances, substance usage continues to result in significant illness and mortality, as well as tremendous societal monetary costs. Substance use is primarily associated with male behavior and is quickly becoming one of the most pressing public health issues in the world. The usage of Khat, cigarettes, heroin, alcohol, and other substances is a global problem that has a particularly negative impact on young people.

According to the Drug Control and Enforcement Commission (DCEA), Medically Assisted Treatment/Therapy is the utilization of medication (Methadone) alongside psychological therapy to improve addiction treatment-related outcomes (DCEA, 2010). MAT is a program designed to support drug-addicted persons to overcome dependence caused by substance use disorder. Treatment of substance abusers, especially opioid users, requires exceptional management, which involves the combination of both psychological and medical treatment. Various methods have been used in managing cases related to opioid dependence, including treatment at rehabilitation centers.

According to the World Health Organization [WHO] (2023), Medically Assisted Treatment (MAT) for opioid dependents is an essential part of universal health coverage along with the promotion of good health, prevention of disease, treatment, and palliative care. Rehabilitation centers differ from one to another depending on the purpose and the scope of their objectives. Among the treatment provided at rehabilitation centers for supporting Opioid users/drug-addicted persons involves the combination of medication and psychosocial therapy, which in general are known as Medically Assisted Therapy (MAT). Thus, MAT is a program designed to support drug-addicted persons to overcome dependence caused by substance use disorder. MAT program combines behavioral therapy and medications to treat substance use disorders. The medication works by interacting with some of the same receptors in the brain that are triggered by the abused drug.

Globally, Opioid addiction is a widespread chronic disease in many nations and impairs the country's income and workforce. According to WHO (2017), Internationally, there are 2 billion alcohol users, 1.3 billion smokers, and 185 million drug users. Tobacco and alcohol consumption accounts for around 5.4% and 3.7% of the global burden of disease, respectively. Worldwide, about 0.5 million deaths are attributed to drug use. More than 70% of these deaths are related to opioids, with more than 30% of those deaths caused by overdose. In the year 2019, about 600,000 deaths were attributable to drug use. Close to 80% of these deaths were related to opioids, with about 25% of those deaths caused by opioid overdose. Opioid overdoses that do not lead to death are several times more common than fatal overdoses. The World Drug Report (2020) shows that by 2018, cannabis and alcohol were the leading psychoactive drugs of abuse. Furthermore, statistics show that marijuana and alcohol are the most commonly used psychoactive drugs among adolescents, accounting for 70% of 12th graders aged 12 to 17 years old, with more males at risk than females.

According to the National Institute on Drug Abuse, 1.9 million Americans have a substance-use disorder related to prescription pain relievers, and 586,000 Americans live with heroin addiction. Consequently, drug overdose was the leading cause of accidental deaths in 2014, with 18,893 deaths related to opioid analgesics and 10,574 deaths related to heroin (Shahid et al., 2017). According to the Centers for Disease Control and Prevention [CDC](2018), the opioid overdose epidemic continues to claim lives across the country, with a record of 47,600 overdose deaths in 2017. (This number represents 67.8% of the 70,237 overdose deaths from all drugs). More Americans now die every year from drug overdoses than in motor vehicle crashes. According to Massachu­setts Department of Public Health (2018), the crisis is taking an especially devastating toll on certain parts of the U.S. work­force. High rates of opioid overdose deaths have occurred in industries with high injury rates and physically demand­ing working conditions, such as con­struction, mining, or fishing.

According to the European Monitoring Centre for Drugs and Drug Addiction [EMEMCDD (2022), around 83.4 million or 29 % of adults (aged 15-64) in the European Union are estimated to have used illegal drugs at least once in their lifetime. Cannabis remains the most widely consumed substance, with over 22 million European adults reporting its use in the last year. Last year, drug use was concentrated mainly among young adults and is estimated at 15.5% among E.U. inhabitants aged 15–34 years. 3.5 million adults consumed Cocaine, 2.6 million MDMA, and 2 million amphetamines. Surveys indicate that nearly 2.2 million 15-34-year-olds (2.2% of this age group) used Cocaine in the last year. Around one million Europeans used heroin or another illicit opioid in 2020. Opioids, often in combination with other substances, were found in around three-quarters of fatal overdoses reported in the European Union in 2020. The availability and use of Cocaine in Europe remain high, and reports indicate that crack cocaine use may be increasing among vulnerable drug users. A record 213 tonnes of Cocaine was seized in the E.U. in 2020, and 23 laboratories were dismantled. Opioids (mainly heroin): While heroin injection is in decline, there are concerns around the injecting of a broader range of substances, including amphetamines, Cocaine, synthetic cathinone, prescribed opioids, and other medicines. Drug-induced deaths continue to be driven by opioids and other drugs. An estimated 5,800 overdose deaths involving illicit drugs occurred in the E.U. in 2020. Most of these fatalities were associated with polydrug toxicity, which typically involves combinations of illegal opioids, other illicit drugs, medicines, and alcohol. There were an estimated one million high-risk opioid users in Europe in 2020. In 2020, the use of opioids was reported as the main reason for entering specialized drug treatment by 66,000 clients, or 28% of all those entering drug treatment in Europe. Of these, almost 11,200 were first-time entrants.

In Africa, particularly the sub-Saharan region, statistics show that several countries are experiencing similar challenges with drug abuse, especially among youths. The pooled prevalence of substance user coverage in the 11 sub-Saharan African countries was 43.70%. Rwanda (12.10%), Comoros (23.90%), and Zambia (74.8%) were the countries with the most diminutive proportions of substance user coverage. At the same time, Mozambique (76.70%), Ethiopia (68.70%), and Uganda (65.60%) were the highest proportions of full substance user coverage. The coverage of specific substances is different among countries; alcohols are predominantly used in Mozambique (76.70%), Uganda (48.00%), Ethiopia (35.20%), and Zimbabwe (33.60%). Chats are used by the male population in Ethiopia (13.70%). The prevalence of cigarette users is highest in Comoros (16.80%). Burundi, Malawi, and Zambia have more Tobacco users (33.70%), (28.50%), and (28.30%), respectively (Ochieng, 2022). In Kenya, People who Inject drugs (PWID) are estimated to be 18,327, of which almost half are in the coastal region. More than 2,262 clients who consume illegal drugs such as cannabis, Khat, heroin, and Cocaine are getting treatment in 2 MAT clinics in Nairobi operated by the University of Maryland, Baltimore.

This shows that Opiate misuse in Tanzania has increased substantially in recent years, where the misuse of heroin has not only increased, but its route of use has changed, from almost exclusively by smoking to high rates of intravenous use. According to the Drug Control and Enforcement Authority (DCEA), Tanzania continues with its operation against opioid use. It has succeeded in disrupting drug networks, seized 13.2 tons of cannabis, 11.8 tons of hat,349.81 kg of heroin, and 4.52 kg of Cocaine, and arrested 9,299 drug dealers and users in 2020. The numbers of drug addicts who are currently on treatment keep increasing, whereby until December 2021, there were 905,902 clients getting treatment at different centers in the country (DCEA, 2020).

Treatment at MAT clients involves the combination of therapy, including medication, psychosocial treatment, health education on the prevention and cure of both communicable and non-communicable diseases, location of the clients with their relatives, linking the clients with different income-generating activities, and provision of family counseling. According to the U.S. National Institute on Drug Abuse, Heroin misuse, especially by people who inject drugs, is associated with a high risk of HIV and hepatitis B & C infection, rapid development of dependence that has enormous socioeconomic and health consequences, including employment problems, family disruptions and legal complications (U.S. National Institute on Drug Abuse, 2018).

To overcome the effects of drug use, countries of the world adopted different mitigation strategies for the prevention of drug use, campaigning for harm reduction programs and capacitating rehabilitation centers to support drug users and combat the situation. In this regard, the MAT model was adopted, which is designed to provide relief by reversing the acute symptoms of heroin withdrawal and restoring their functioning. The psychological treatment helps the drug user have an opportunity to see their problems from a different perspective, improve their self-reliance, empower the individual to seek and effect life changes, improve self-esteem, and give realistic hope. In Kenya, for example, health authorities have taken ground-breaking steps toward reducing the spread of HIV among PWID. Kenya's first medically assisted therapy (MAT) clinic to support PWID was established in Nairobi in 2014 (University of Maryland, 2015).

The government of Tanzania also adopted several measures, including the strengthening of the Commission for Drug Enforcement and Control Authority (DCEA) and launching of drug combating campaign by publicizing in the 2020 to 2025 CCM manifest from Section 83(t) subsection 244 (a) to 244 (l), capacitating rehabilitation centers including the Medically Assisted Therapy (MAT) and mental health clinics. According to DCEA 2021, a total of 169,269 clients were given treatment at different healthcare centers, of which 137,300 were males and 31,969 were females. Up to December 2021, a total of 15 MAT clinics were available in regions of Dar es Salaam (Muhimbili National Hospital, Temeke regional referral hospital, Mwananyamala Hospital Kinondoni, Kigamboni, and Segerea Hospital), Mbeya zonal referral hospital, Sekou Toure hospital in Mwanza, Itega hospital at Dodoma, Bagamoyo district hospital, Tumbi regional referral hospital at Pwani region, Mount Meru hospital and Bombo hospital Tanga region. The existence of MAT clinics has been seen as the alternative solution for drug addicts in many parties of the world, which involves the use of psychosocial support as the mainstream of treatment for social and behavioral changes (DCEA, 2021).

MAT clinic has proven effective in helping patients recover from opiate addiction. When prescribed and monitored correctly, methadone and buprenorphine are safe, cost-effective, and significantly reduce the risk of overdose. Other benefits include the following: increased patient retention in treatment, improved social functioning, lower risks of infectious disease transmission through avoidance of illicitly obtained injectable drugs, and reduction in criminal activities, as money is no longer needed to support an addiction. In areas where there are no MAT clinics, opioid users fail to obtain such potential care and treatment support, something that perpetuates the cycle of dependence on drugs/ opioid abuse (Connery, 2015).

To address the effects of drug use, countries worldwide have implemented various strategies, including harm reduction programs and rehabilitation centers. In Tanzania, MAT was introduced to alleviate acute heroin withdrawal symptoms and restore functionality. The government has strengthened the DCEA, launched a drug combat campaign as outlined in the 2020-2025 CCM manifesto (Section 83(t), subsections 244(a) to 244(l)), and established MAT and mental health clinics. The MAT model aims to provide relief by reversing withdrawal symptoms and improving overall functioning (DCEA, 2018). Implementing MAT programs offers numerous benefits, including socioeconomic, medical, and legal support.

## 1.2 Statement of the Problem

Over 296 million people worldwide used drugs in 2021, marking a 23% increase over the previous decade, whereby the number of individuals suffering from drug use disorders has risen to 39.5 million, which is 45% increase over the past ten years United Nations (2021). Due to the negative impacts of substance abuse ranging from medical and psychological disorders, HIV infection, sexually transmitted infections (STIs), social and legal related challenges has risen the need to support those individuals affected from addiction to undergo recovery.

To address the drug crisis and support drug addicted individuals, countries of the world have implemented various strategies to support drug users. Tanzania has adopted several approaches, including supply reduction, demand reduction, harm reduction, and the establishment of rehabilitation centers and Medically Assisted Therapy (MAT). Since the introduction of MAT at Tumbi Regional Referral Hospital, a significant number of opioid users have received support to overcome dependence resulting from substance and alcohol abuse. Although various studies have been conducted on MAT programs (e.g., Knudsen, Abraham, & Roman, 2011; Baghazal et al., 2016), the specific role of MAT in supporting drug-addicted individuals has not been thoroughly explored, and there is limited data on its impact in certain areas.

## 1.3 Objectives of the Study

## 1.3.1 Main Objective

The main objective of the study was to assess the contributions of Medically Assisted Treatment in supporting drug-addicted individuals.

## 1.3.2 Specific Objectives

This study aimed to assess the contributions of Medically Assisted Treatment (MAT) to substance-dependent individuals in Kibaha Town, Coastal Region, Tanzania.

1. To assess the contribution of Medically Assisted Treatment (MAT) in supporting individuals with drug addiction.
2. To examine the challenges facing drug addicted individuals in accessing MAT services.
3. To assess the societal support available for individuals recovering from drug addiction.

**1.4 Research Questions**

The following research questions guided the research

1. What is the contribution of Medically Assisted Treatment (MAT) on supporting individuals with drug addiction?
2. What challenges faced by drug addicted individuals in accessing MAT services?
3. What is the extent of societal support available for individuals recovering from drug addiction?

**1.5 Significant of the Study**

This study aims to evaluate the contribution of Medically Assisted Treatment (MAT)

in supporting individuals with drug addiction. The study will increase awareness among individuals, stakeholders, and government agencies, particularly the Ministry of Health and policymakers, by assessing the benefits of MAT services, such as alleviating withdrawal symptoms and restoring functionality. This heightened awareness is crucial for planning effective interventions and enhancing existing support mechanisms for drug-addicted individuals.

Furthermore, the study addresses social injustices, stigmatization, and discrimination by contributing new insights into mitigating social discrimination, fostering healthy relationships, strengthening social cohesion, and advancing global Sustainable Development Goals (SDGs) for 2030, particularly in promoting health and well-being for all.

Additionally, the research will examine how MAT interventions impact psychosocial outcomes, including family and community reintegration, stable housing, and employment. It is also expected to reduce incidents of violence and crime. This study aims to enhance overall community knowledge and support for MAT initiatives by broadening community understanding and familiarity with MAT services.

# **CHAPTER TWO**

## LITERATURE REVIEW

## 2.0 Chapter Overview

This chapter presents a review of the study's key issues. The researcher read several books, journals, articles, and publications to expand knowledge, gain new insight into what other authors have explored, worked on, and published, and identify gaps in relation to the study topic.

## 2.2 Definition /Conceptualization of the Terms

This part provides the meaning of the key terms to be used in this study. It enables the reader to be familiar with the meaning of the key issues to be discussed in this chapter by referring to definitions from different authors so that the reader obtains a concept of how others have defined them and precisely how they will be used in this study topic.

**2.2.1 Medication-Assisted Treatment (MAT)**

For this study, Medication-Assisted Treatment (MAT) is the use of medications, alongside counseling and behavioral therapies, to treat substance use disorders. The U.S. Department of Health and Human Services (2011) defines MAT as a treatment for addiction that includes the use of medication along with counseling and other support. In the context of this study, MAT is a service designed to support drug-addicted individuals through the use of counseling alongside medical treatment.

## 2.2.2 Opioids

U.S. Department of Health and Human Services (2011) defined Opioids as drugs that

slow down the actions of the body, such as breathing and heartbeat. Opioids also affect the brain to increase pleasant feelings. In this context, opioid refers to a substance that has effects similar to opium.

**2.2.3 Opioid Use Disorder**

According to the U.S. Department of Health and Human Services (2011), Opioid use disorder (OUD) is defined as a chronic use of opioids that causes clinically significant distress or impairment. OUD can range from dependence on opioids to addiction. In the context of this study, Opioid use disorder refers to the chronic use of opioids that cause clinically significant distress or impairment. Opioid dependence and addiction are products of many biological, environmental, genetic, and psychosocial factors.

**2.2.4 Addiction**

According to the U.S. Department of Health and Human Services (2011), it is defined as a disease that results when an opioid has made changes to the brain. In the context of this study, addiction refers to the chronic relapsing disorder characterized by compulsive drug seeking and use despite adverse consequences.

**2.2.5 Drug Addiction**

Also called substance use disorder, it is a disease that affects a person's brain and behavior and leads to an inability to control the use of a legal or illegal drug or medicine. Substances such as alcohol, marijuana, and nicotine also are considered drugs. When you are addicted, you may continue using the drug despite the harm it causes (Dydyk et al., 2024). In the context of this study, Drug addiction is a condition where a person becomes unable to control their use of a substance.

**2.3 Theoretical Review**

A theory presents a systematic way of understanding and explaining events, behavior, and/ or situations. It is an interrelation of concepts, definitions, and propositions that explains or predicts events or situations by specifying relations among variables (Kothari, 2014). Theories and models help to explain behavior and suggest effective ways to influence and change behavior. The study was guided by system theory.

## 2.3.1 System Theory

According to Gibson (2016), system theory involves studying a system as a complex arrangement of elements, including individuals and their beliefs as they relate to the whole. Systems theory was founded by the biologist Ludwig von Bertalanffy (1901-1972). The critical principles underpinning the theory include interconnectedness, holism, and hierarchy. The theory was developed between (the 1930s and 1940s) and emphasizes that each part of the system works together in an interconnected, interrelated, and interdependent way to enhance the fulfillment and maintain the adjustment of the social structure (Von Bertalanffy, 1968). System theory proposes that changing one component of a system may affect other components or the whole system. This theory also analyzes how society adapts to its environment through structural adjustment, which has important implications for understanding social order (Skyttner, 2005).

In every society, a system defines how people interact with one another in interdependence through joint efforts and multidisciplinary collaboration in an inter-connected and interrelated manner. This theory helps to understand how the system's underlying structure regulates social order and peace and controls social behaviors as a whole. Thus, the MAT program is not a standalone treatment because it combines medications with behavioral therapy, psychosocial support, and other wraparound services, leading to the best outcomes (Sutton, 2016). That is to say, Systematic thinking allows us to interact with systems without knowing the details of the individual components they are composed.

## 2.3.2 Relevancy of the Theory

In relating this theory to the study, system theory can be applied to demonstrate how multiple parts of the social structures work together to support the system's functioning. In assessing the contribution of the MAT program in supporting drug dependence, system theory is relevant when looking at how staff with different skills and multi-professionals collaborates in the MAT setting to support drug-addicted individuals toward recovery from addiction. Drug-addicted individuals are typically assessed at several levels, starting from the medical recorder to the nurses for nursing assessment, then to the social worker for social intervention, to the clinician for clinical assessment, and finally to the pharmacist before the initiation of the dosage (Cochran, 2019).

Every staff member has a set of duties to perform when helping the client get proper treatment. When one of the staff fails to make a proper/ appropriate assessment, it may affect the client and the overall performance of the clinic by causing a drug overdose and putting the client at risk of death due to a wrong diagnosis. In examining the challenges faced by MAT clinics in supporting drug-addicted clients, system theory is relevant because it helps to understand how different parts of the social organization work together and collide based on interests, altitudes, and choices. The operation of MAT clinics usually relies upon funds from donors and stakeholders like the Centers for Disease Control and Prevention CDC, the Drug Control and Enforcement Commission, the Ministry of Health, and civil society organizations. Each of these organizations has its targets, interests, and purpose. Thus, if the interest of one of these organizations is not fulfilled, there may be challenges in service delivery, unnecessary delay, and the system's functioning in serving the clients due to the unmet conditions (White & Samuels, 2017). Therefore, each organization requires working collaboratively in an interdependent and interconnected manner to prevent barriers in service delivery like on-time supplies of drugs, stationeries, and other vital utilities essential for supporting drug-addicted individuals.

Furthermore, this theory is relevant in describing the societal attitude and support toward MAT clinics in supporting recovery from drug addiction by looking at how society contributes toward responding and preventing relapse and emphasizing changes in behavior, mob psychology, and peer influence(Giddens, 2013). Also, it helps to understand the roles played by society in dealing with drugs and collaborating with MAT clinics by engaging in recruiting new clients, disclosing the drug-selling centers, and encouraging drug users to join MAT programs. Thus, if the societal support is pessimistic about the client's existence, it will create barriers to collaboration and engagement in different social activities necessary for recovery. Therefore, system theory helps to identify the existing attitude and support from society in dealing with drug-addicted individuals and demonstrate that the successful graduation of the client from drug addiction relies upon the existing support from MAT and society in general by working together with all concerned parties in order to support the client fully.

## 2.3 Empirical Literature Review

An Empirical Literature review provides scientifically based evidence of the topic under study. Thus, it is crucial in research as it provides a solid foundation for existing studies and helps establish the context for a new study.

## 2.4.1 Contributions of Mat Clinic in Supporting Drug Addicted Individuals

MAT clinic, like any other rehabilitation center, provides a "whole-patient" approach to treating addiction to opioids such as heroin or prescription pain relievers. MAT helps treat opioid use disorder (OUD) by helping normalize brain chemistry, blocking the euphoric effects of opioids, and relieving physical cravings without the adverse effects of heroin. According to the World Health Organization (2019), buprenorphine and methadone are "essential medicines." For people struggling with addiction, the use of these assistive medications in combination with behavioral services can help sustain recovery better than just medication or psychosocial treatment on their own. Improved psychosocial outcomes are critical indicators for assessing the impact of MAT interventions. One of the vital psychosocial indicators tracked, MAT has been shown to improve family and community reintegration, stable accommodation, and employment. MAT interventions have also seen a decrease in incidences of violence, as well as crime. The power of counseling in MAT services has been considered the main contributor to social change and behavioral modification. According to the U.S. Department of Health & Human Services (2011), Opioid Use Disorder (OUD) has been identified by different countries as a national crisis. MAT program benefits the client in several crucial ways.

MAT has a substantial potential to offset consequences for patients with OUD. Morbidity associated with OUD is as standard as 20.1% monthly. MAT has been demonstrated to reduce the drug utilization rate by 51%. Additionally, MAT has been shown to result in decreased criminal activity and human immunodeficiency virus and hepatitis C infections. Long-term data on the efficacy of MAT for OUD is limited; a randomized study of patients with OUD assigned to either methadone or buprenorphine /naloxone (Suboxone) demonstrated 5-year abstinence from heroin rate of 33.2% (number needed to treat = 3) and 20.7% from all opioids. (Deyo-Svendsen et al 2020).

Benefit of Counseling Many people on medication-assisted treatment benefit from counseling because of the opportunity to talk with a professional one-on-one or in a group with others in treatment. Through counseling, people learn about the disease of addiction. They also learn why the addiction occurred, the problems it has caused, and what they need to change to overcome those problems. Counseling can provide encouragement and motivation to stick to treatment. It can teach coping skills and how to prevent relapse. MAT program helps to fight against addiction. Addiction is a disease that results when the opioid has made changes to the brain. A person using medication properly is not likely to get addicted, but this sometimes happens. Addiction usually occurs through misuse. Some people are at higher risk of addiction because of their genes, temperament, or personal situation. The signs of addiction are: The mind develops an overwhelming desire for the drug. Treatment helps people stop using the Problem drug (Gibson, 2016). It helps them get through withdrawal and cope with cravings. Treatment also helps them move away from other harmful behaviors, such as drinking alcohol or abusing other drugs. Just as important, treatment helps people address life issues they might have that are tied to the addiction, such as feelings of low self-worth, a bad situation at work or home, or spending time with people who use drugs.

MAT clinic has proven effective in helping patients recover from opiate addiction. When prescribed and monitored correctly, methadone and buprenorphine are safe, cost-effective, and significantly reduce the risk of overdose. Other benefits include the following: increased patient retention in treatment, improved social functioning, lower risks of infectious disease transmission through avoidance of illicitly obtained injectable drugs, and reduction in criminal activities, as money is no longer needed to support an addiction. In areas where there are no MAT clinics, users fail to obtain such potential care and treatment support, something which perpetuates the cycle of dependence on drugs/ opioid abuse (WHO, 2019). Help to fight against addiction: Addiction is a disease that results when the opioid has made changes to the brain. A person using medication properly is not likely to get addicted, but this sometimes happens. Addiction usually occurs through misuse. Some people are at higher risk of addiction because of their genes, temperament, or personal situation. The signs of addiction are: The mind develops an overwhelming desire for the drug. With loss of control, it becomes harder to say no to using the drug. Use is compulsive and continues even when it causes harm (National Institute on Drug Abuse, 2020).

Medical Treatment of Opioid Dependence The treatment of opioid dependence is a set of pharmacological and psychosocial interventions aimed at reducing or ceasing opioid use, preventing future harms associated with opioid use, and improving the quality of life and well-being of the opioid-dependent patient. Treatment of drug dependence can serve multiple purposes. Beyond reductions in drug usage, it can help the drug user to see his or her problems from a different perspective, improve self-reliance, and empower the individual to seek and effect changes in their life; it can even confer self-esteem and give hope. In most cases, treatment will be required in the long term or throughout life. The aim of treatment services in such instances is not only to reduce or stop opioid use but also to improve health and social functioning and to help patients avoid some of the more severe consequences of drug use.

MAT treatment helps people overcome withdrawals. It helps them get through withdrawal and cope with cravings. Treatment also helps them move away from other harmful behaviors, such as drinking alcohol or abusing other drugs. Just as important, treatment helps people address life issues they might have that are tied to the addiction, such as feelings of low self-worth, a bad situation at work or home, or spending time with people who use drugs. In short, treatment helps people move into healthy, addiction-free lifestyles and a way of living referred to as recovery.

Enables the combination of treatment for addicted individuals; according to the University of Maryland (2011), the use of Methadone treatment has produced good treatment outcomes for ART. MAT has improved family and community reintegration, stable accommodation, and employment. Strong advocacy and support from civil society organizations have led to stakeholder engagement forums with the government and law enforcement, (Deyo-Svendsen et al., 2020). This has led to the development of national guidelines and standard operating procedures for the clinics. MAT clinics actively work with law enforcement to implement harm reduction and maintain treatment for People Who Inject Drugs (PWID). Generally, the contribution of MAT clinics in supporting drug-addicted individuals is fundamental. It can never be undermined in any way, as in this sphere, clients are shaped to enhance behavioral modification and enable harm reduction.

**2.4.2 Challenges faced by MAT in opioid Misuse Prevention and Treatment**

In many parts of the world, there are several MAT clinics established to provide help to the substance addictive individual. North America is in the midst of a massive opioid misuse epidemic. In the USA, over 2.4 million people meet the criteria for severe opioid use disorder (OUD) involving dependence on opioid analgesic medications, heroin, or both. Since 2013, deaths from drug overdose have surpassed deaths from motor vehicle accidents, making overdose the leading cause of preventable death in the USA. In Canada, as of 2012, there are an estimated 75,000 to 125,000 people who inject drugs (PWID) and an estimated 200,000 individuals dependent on prescription opioids. In Mexico, there are over 100,000 persons who use opioids, and from 2002 to 2008, there was an increasing number of heroin users (Vashishtha et al., 2017).

Efforts to halt the opioid epidemic have varied across the countries in North America. In Mexico, the government placed access to medication-assisted treatment (MAT) at the center of their policy response. At the same time, in Canada, there have been multiple successful efforts to expand access to treatment for marginalized populations. In November 2016, the U.S. Congress voted to fund former President Obama's 1-billion-dollar Comprehensive Addiction and Recovery Act (CARA). This proposal to address the opioid crisis focuses on increased access to MAT in the form of methadone, buprenorphine, and injectable naltrexone. It will target funding to states that are most affected by the opioid epidemic and have innovative plans to address treatment disparities.

Several challenges have been reported when accessing MAT services, something which makes the struggle against addiction and substance use disorder be the challenges observed include the following. Prescribing practices in the USA, pharmaceutical advertising, and prescription practices have undoubtedly contributed to the current opioid epidemic. According to report the Surgeon General's Report on Alcohol, Drugs, and Health, opioid prescribing practices have become a high-profile issue in the USA. Prescribing guidelines from the CDC emphasize that opioid prescriptions are to generally be avoided for chronic non-malignant (i.e., non-cancer) pain and that if an opioid is deemed necessary, providers should "start low and go slow." While this is an excellent starting point, it is also likely that providers will take many years to adapt to the new guidelines fully and that substantial training in pain management and addiction medicine is required (Volkow & McLellan, 2016).

MAT infrastructure and cost for persons suffering from OUD, MAT remains the clinical gold standard for treatment. In the USA, however, there is inadequate infrastructure for MAT delivery, and a treatment gap exists, with more than 1 million eligible opioid-dependent individuals not receiving care. Despite the well-established cost-effectiveness of MAT, many methadone maintenance programs in the USA have also been closed because of lack of funding, and clinicians have been discouraged from establishing MAT because compliance with federal methadone regulations is too time-consuming in a private practice model. Marginalized populations across North America experience a range of barriers to being prescribed MAT. In Mexico, an intake diagnostic package fee must be made before patients can be enrolled in long-term methadone therapy. In the USA, new MAT treatments, including buprenorphine, are often not covered by insurance. Part of the treatment gap in the USA is likely attributable to the lack of a national healthcare system, which has increased buprenorphine prescribing in France and Canada (Vashishtha et al., 2017).

Policy Factors: This was another barrier facing Marginalized populations across North America, who experience a range of barriers to being prescribed MAT. In Mexico, an intake diagnostic package fee must be made before patients can be enrolled in long-term methadone therapy. In the USA, new MAT treatments, including buprenorphine, are often not covered by insurance. Part of the treatment gap in the USA is likely attributable to the lack of a national healthcare system, which has allowed for the scale-up of buprenorphine prescribing in France and Canada. Further, in general, the USA lacks low-threshold programs that increase treatment accessibility for the most significant number of individuals in need. Low-threshold models might involve free or low-cost therapy, shortened waiting lines, and integrated care centers that provide mental health services. Such models are becoming the standard of care in countries such as Canada and elsewhere (Fischer et al., 2014).

In Vancouver, Canada, for example, methadone is dispensed at pharmacies, and integrated mental health treatment and social support services for pregnant opioid users have been implemented. In the USA, there have been successful examples of low-threshold programs, such as the San Francisco Department of Public Health's office-based Buprenorphine Pilot Program, aimed at integrating buprenorphine treatment into the outpatient setting, as well as the office-based buprenorphine model piloted through community health centers in Massachusetts. However, these programs are rare and often remain within the pilot phase in the USA. There are also significant disparities in access to MAT by race, as white patients tend to receive buprenorphine, while black and Latino patients are more likely to receive methadone (Vashishtha et al., 2017). Provider-level factors are another barrier facing MAT services across many nations worldwide and building upon the U.S. Health and Human Services Opioid Initiative, the Substance Abuse and Mental Health Services Administration (SAMHSA), will expand MAT availability by allowing previously trained nurse practitioners and physician assistants to prescribe MAT in the form of buprenorphine in early 2017.

However, this new low-threshold model might face challenges in implementation, as is the case with physicians, of whom only 2.2% are waivered to provide buprenorphine. Physicians have also been characterized as having "low confidence in addressing addiction, limited access to addiction experts, lack of institutional or office support, lack of behavioral health services, and reimbursement concerns." This is related to the fact that physicians receive little addiction training and have an ongoing stigma against treating PWID. The lack of experience with addiction treatment in the USA is thought to be a primary barrier to buprenorphine prescribing in the USA. Mexico faces an even more severe challenge, as primary care physicians cannot prescribe MAT to patients directly. This is because methadone treatment is the only MAT option available in Mexico, and it is only dispensed in a few private clinics, while only three government-sponsored clinics are in operation across the entire country. Given the high prevalence of opioid use in Mexico's northern border region, leading health authorities in the country have, therefore, called for a national scale-up of methadone treatment (Vashishtha et al., 2017).

Law enforcement-related factors are another side of the case; Street-level drug market policing remains a crucial barrier to addiction treatment access in North America among marginalized drug-using populations. In Mexico, certain policing practices such as active surveillance, police sweeps, and extortion hinder MAT retention and reduce the financial capacity of PWID to cover MAT visit payments. Policing practices in Mexico are, therefore, the subject of an ongoing police education program, which focuses on HIV prevention through various means, including MAT provision. The USA has punitive illegal drug policies that are likely contributing to high levels of illegal drug use, and it has been suggested that a focus on supply-side drug market interventions in the USA has not meaningfully impacted the availability of illegal drugs; indeed, over the past decades, there has been an increase in the purity and a decrease in the price of drugs including cannabis, Cocaine, and heroin. This is particularly concerning given President-Elect Donald Trump's recent comment that his solution to the heroin epidemic would be to "cut off the source, build a wall." While similar outcomes have been demonstrated in Canada, emerging public health and policing partnerships, including police diversion of PWID to medically supervised injection facilities, suggest a potential role for police in improving the engagement of individuals with inappropriate OUD care (Fischer et al., 2014). Thus, Street-level drug market policing remains a crucial barrier to addiction treatment access in many places among marginalized drug-using populations.

## 2.4.3 Societal Support Mechanisms Available for Addiction Recovery

Society and family members can support drug addict individuals in several ways, including positive encouragement, monitoring health, sharing information, and helping in moments of crisis. Strong advocacy and support from civil society organizations have led to stakeholder engagement forums with the government and law enforcement. This has led to national guidelines and standard operating procedures for clinics. Supporting individual drug addicts reduces drug harm and death by recognizing and tackling the problems. Poor social support has been linked to depression and loneliness and has been shown to alter brain function and increase the risk of alcohol use, cardiovascular diseases, depression, and suicide. (Cherry, 2023).

A cross-sectional study of secondary school students in Poland indicated that human differences between boys and girls act as a motivation factor that introduces youths to substance abuse. In contrast, boys use more psychoactive substances than girls. Anxiety levels may be associated positively with nicotine use for coping reasons among females, but not males, and females may be more likely to expect cognitive and behavioral problems compared to males (Kim, 2017).

A survey study conducted by CSEW (2020) among secondary schools in Wales revealed that students engaged in the use of psychoactive substances because they wanted to ease problems such as stress, anxiety, and depression. Joel (2018) revealed that the easy availability of painkillers, sleeping pills, and tranquilizers motivated students to practice psychoactive substances in Jamaica. Academic pressure motivates students to engage in substance abuse in Uganda.

A study by Musyoka, Mbwayo, Donovan, and Mathai (2020) showed that students who get A's and B's in school are less motivated to engage in substance use than students who experience poor academic performance. A study by Gatasetegn (2016) revealed that a lack of parent-child communication is a source of students' engagement in the use of substances. One of the most incredible things a parent can do to prevent children from using substances is to communicate and talk to them about the danger of drug use.

Research done by Gatasetegn (2016) has proven that the majority of students who have conversations with their parents about drinking or drug use in South Africa are reportedly less likely to engage in the use of drugs. Nikmanesh (2015) asserts that peer pressure is among the motives behind the use of substances by secondary school students in Libya. The author added that a student who has already started using psychoactive substances is likely to invite other students into the use of psychoactive substances.

A study conducted by Bentea (2014) in Romania suggested that senior students in Secondary schools purposely approached first-year students to benefit from sharing their money to cover the cost of substances. Feelings of inferiority among students in secondary schools constitute a motive behind the use of psychoactive substances among students in Rwanda. All these studies have revealed the societal support mechanism that could help a client recover and how it can lead a person into drug abuse.

## 2.5 Knowledge Gap

In regards to the contribution of MAT service in supporting drug addicted individuals, [Deyo-Svendsen](https://pubmed.ncbi.nlm.nih.gov/?term=Deyo-Svendsen%20M%5BAuthor%5D) et al. (2020) and Zhu et al. (2018) argued that, there are limited materials published about the contribution of rehabilitation services like MAT programs in supporting drug-addicted individuals. Most studies center on the roles of methadone over heroin, while it is essential to evaluate the contribution of the MAT clinic as a whole in order to identify areas for improvement and make necessary adjustments to reach the desired goals of reducing harm and supporting substance users.

In assessing the challenges faced by drug-addicted individuals in accessing MAT clinics, it was noticed that few studies have pointed out the challenges of MAT clinics in different settings. Only Laswai (2017) has explored the challenges faced by drug-addicted individuals at Dar es Salaam, Muhimbili National Hospital. Still, few publications have explored these challenges in Kibaha town at Tumbi Hospital. Still, no study was done that resembles our context and settings. Considering the above empirical studies discussed, there is no doubt that a great number of similar studies have been carried out. However, it has been noted that less is known about the contribution, challenges, and effects of Tumbi MAT clinics in supporting opioid-addicted individuals in Kibaha Town Council.

**2.6 Conceptual Framework**

According to (Creswell, 2018), a conceptual framework is a tool researchers use to guide their inquiry. The figure below provides the conceptual framework that gives the relationship between the dependent and independent variables, where the dependent variable is the MAT services offered to substance-addicted individuals. In contrast, the independent variables include the impact of Medically Assisted Treatment (MAT) in supporting individuals with drug addiction, the challenges faced by MAT clinics, and the societal support available for individuals recovering from drug addiction. MAT services are in higher demand for those clients who abuse substances, particularly drug-addicted individuals who use heroin and Cocaine as their primary opioids. To enable the client's recovery from opioid dependence, MAT services become an essential component towards the impacts as a significant driver of the transformation. Limited services posed by different challenges in accessing care at MAT clinics and ineffective treatment for addicted individuals compromise recovery from addiction. This study, therefore, is designed to explore the contribution of MAT clinics in supporting drug-addicted individuals.

Impact of MAT services in supporting drug addicted individual

**MAT SERVICES**

Challenges faced by drug addicted individuals

Societal support available for drug addicted individual towards recovering

**Figure 2.1: Conceptual Framework**

**Source:** Researcher’s Construct (2024)

# **CHAPTER THREE**

## RESEARCH METHODOLOGY

## 3.1 Introduction

This chapter includes a detailed description of the research methodology used in the study, including the research design, research approach, study area, Population, sample size, data collection, analysis, and ethical considerations.

## 3.2 Research Philosophy

Kothari (2014) argued that research philosophy is the belief that data about a phenomenon should be gathered, analyzed, and used. Philosophy is concerned with views about how the world works on reality, knowledge, and existence. The philosophy of this study was based on Interpretivism, especially Critical Realism, which distinguishes between the natural and observable worlds. The 'real' cannot be observed and exists independently from human perceptions, theories, and constructions as it relies on the nature of reality and the existing reality (Bhaskar, 1978). Hence, the research aims to understand the existing reality of the services provided at MAT clinics in supporting drug-addicted individuals.

## 3.2.1 Research Design

This study adopted a qualitative case study design to explore the experiences and perspectives of participants at the MAT Clinic within the Mental Health Department of Tumbi Regional Referral Hospital in Kibaha Town, Coast Region. The research was conducted in June 2024, focusing on gaining in-depth insights into the subject under investigation. The case study design was chosen because it allows for a detailed and holistic examination of a specific context, enabling the researcher to capture the phenomenon's complexity as it occurs in a real-life setting (Yin, 2018). The case study design was particularly appropriate for this research, as it facilitated an in-depth exploration of participants' views, attitudes, and experiences regarding the chosen subject. This Approach provided rich, qualitative data that helped to reveal the nuanced social, psychological, and institutional factors influencing the topic. The case study design is also flexible and cost-effective, allowing for a focused inquiry into a specific site while laying the groundwork for potential future studies. This method also ensured that the research could capture individual and contextual factors essential for a comprehensive understanding of the phenomenon (Stake, 1995).

## 3.2.2 Research Approach

This study employed a qualitative approach to explore participants' subjective experiences and perceptions at the MAT Clinic within the Mental Health Department of Tumbi Regional Referral Hospital. A qualitative approach was chosen due to its suitability in capturing the complexity of human experiences and the contextual factors influencing the phenomena under investigation. This Approach facilitated the collection of rich, detailed data, allowing for a deeper understanding of the participants' perspectives regarding the subject matter. The qualitative Approach allowed the researcher to investigate participants' underlying meanings, motivations, and experiences in their natural setting by focusing on open-ended data collection methods, such as in-depth interviews and observations. The emphasis was on generating descriptive data to provide insights into the processes, attitudes, and behaviors relevant to the research objectives. This flexible and iterative Approach enabled the researcher to adapt and refine the inquiry based on emerging themes, ensuring that the findings reflect the depth and breadth of the participants' experiences.

## 3.3 Study Location/ Area

This study was conducted at Tumbi Regional Referral Hospital, Kibaha town council**,** Pwani region. The choice of this study area was because of the existence of the regional referral hospital, which combines multiple fields, offering a broader perspective with a population of different cultural backgrounds; it is the presence of only MAT clinic for drug addicted at the regional level unlike another near region like Dar es salaam where there are Five MAT centers of the regional level, thirdly was the number of a client enrolled whereby over 550 clients are currently on treatment. In contrast, this center is located over 40 km from the Coast of the Indian Ocean, making it difficult to access drugs accessibility, unlike areas like Mwananyamala Hospital or Muhimbili National Hospital, which are found near beaches and ports, which are the hotspots for drug trafficking and selling points.

Another factor includes patient demographics, whereby Tumbi Hospital serves a diverse population with varying degrees of addiction, hence providing a rich data set. Lastly, the nature of the lifestyle of the drug users, who tend to prefer living in groups, impacts behavioral and social life. These factors can collectively enhance the relevance and applicability of the research findings in examining the contribution of MAT clinics in supporting drug-addicted individuals.

## 3.4 Study Population

According to the ­­National Bureau of Statistics (NBS) (2022), the region's Population is 2,024,947, which is an increase of 926,279 from the last censer of 2012, which was 1,098,668 (NBS, 2022). The area has two MAT clinics for treating drug-addicted individuals: the Bagamoyo MAT clinic at Bagamoyo District Hospital and the Tumbi MAT clinic at Tumbi Regional Referral Hospital, Kibaha Town Council. According to Tumbi Hospital, so far, there are over 550 registered substances addicted individuals at the Tumbi MAT clinic. These clients with substance use disorder are treated daily at MAT clinic by attending every morning to take up their syrup of methadone dosage.

## 3.5 Sampling Technique /Procedures

The sampling procedure for this study followed a purposive sampling strategy, commonly used in qualitative research, to identify participants who possess specific knowledge or experiences relevant to the research topic (Creswell & Poth, 2018). The study was conducted at Tumbi Regional Referral Hospital, explicitly targeting individuals involved in the MAT Clinic within the Mental Health Department. Participants were selected based on their roles, expertise, and experiences with the services provided at the clinic. Participants such as healthcare professionals, clinic staff, and patients receiving treatment at the MAT Clinic were carefully chosen to ensure the inclusion of diverse perspectives. The researcher sought individuals who could provide rich, in-depth information on the topic under investigation, making them ideal informants for the study's objectives. The sample size was determined by the principle of saturation, where data collection continued until no new insights or themes emerged. This Approach ensured that the study captured a comprehensive range of views and experiences related to the subject matter (Creswell, 2014)

**3.5.1 Non Probability Sampling**

In this study, the researcher employed the criterion-purpose Sampling method in sample selection, whereby the units were selected because they met the characteristics needed in the sample. This method relies on the researcher's judgment when identifying and selecting the individuals, cases, or events that can provide the best information to achieve the study's objectives (Etikan et al., 2016).

**3.6.1 Conclusion and Exclusion Criteria**

Inclusion and exclusion are essential to research as they help define the population and ensure the study sample is appropriate for answering the research question (Ayaji,2023) .The criteria for inclusion were based following factors: Be a drug-addicted individual who is currently on treatment at Tumbi Hospital, MAT clinic; ü Must be a client registered and admitted at Tumbi MAT clinic, Adult from 18 years old and above, Consent to participate in the survey and agree.

On the other hand, the study excluded all individuals in selected areas were not eligible to participate in the survey if they: Not fulﬁl the inclusion mentioned above criteria, A person with a significant physical deformity such as paralysis, cerebral palsy, mental illness, or cognitive disabilities, A client who is under the age of 18 years old at the time of the survey.

**3.7 Secondary Data**

According to Kothari (2014), secondary data refers to information collected from previously published sources, such as studies, surveys, or experiments conducted by others. This study gathered secondary data from libraries and websites, including books, articles, journals, and other online publications.

**3.8 Primary Data Source**

In this study, primary data was collected directly from the field through interviews. The interviewer used a structured list of questions to gather responses from participants who shared their experiences related to the topic. This method addressed all three research objectives and involved open-ended and closed-ended questions.

#### **3.9 Data Collection Method**

Data collection is the systematic process of gathering and measuring information on variables of interest in an established, consistent manner. This process allows researchers to obtain accurate and relevant data that can be analyzed to answer research questions, test hypotheses, and evaluate outcomes (Creswell, 2014). Data collection occurred from June 10th to June 30th, 2024, involving 36 participants receiving treatment at the MAT clinic at Tumbi Hospital, Kibaha. This study employed a qualitative approach, with data collected through interviews. One advantage of this method is that it allows the interviewer to observe the participants' gestures and reactions while they answer the questions.

**3.9.1 Interview Method**

As Kothari (2014) outlined, the interview involves face-to-face conversations with

respondents. This Approach is highly regarded for its ability to provide in-depth and comprehensive information directly from individuals. In this study, the interview method was utilized with thirty-six drug-addicted individuals who were undergoing treatment at the MAT clinic at Tumbi Hospital. To facilitate the data collection process, an interview guide was meticulously developed. This guide was structured into four distinct sections, each designed to address specific aspects of the research.

The first section, Section A, aimed to establish rapport with the participants, creating a comfortable environment for open and honest dialogue. Section B focused on gathering insights into the contributions of the MAT clinic to individual recovery. This section was crucial for understanding how the clinic supports patients overcoming addiction. Section C of the interview guide was dedicated to exploring the challenges faced by drug-addicted individuals when accessing MAT services. By addressing these challenges, the study aimed to identify barriers and areas for improvement in service delivery.

Finally, Section D of the guide sought to gather information about the societal support mechanisms available to individuals recovering from addiction. This section was intended to provide a broader perspective on how societal factors contribute to or hinder the recovery process. Overall, the use of the interview method allowed for a detailed examination of the participants' experiences and perspectives, providing valuable insights into the effectiveness and challenges of the MAT clinic in supporting drug-addicted individuals.

## 3.10 Qualitative Data Rigor

Qualitative rigor pertains to the consistency and transparency of research. It involves applying systematic, disciplined, and rigorous methods to ensure research findings' credibility, Dependability, confirmability, and transferability. In qualitative research, these attributes are crucial for accurately reflecting the phenomenon under study, ensuring that others can use findings, and allowing the research processes and results to be scrutinized and validated (Lincoln & Guba, 1985).

**3.10.1 Credibility**

This study took measures to ensure the data's credibility, confirmability, and transferability. This was achieved by utilizing multiple data sources and methods, which helped to reduce or minimize errors and biases and enhance the accuracy of the data collection and analysis process (Shenton, 2004).

**3.10.2 Dependability**

Dependability refers to the consistency of the research process, ensuring it is logical and well-documented. It addresses the potential for others to build upon the research through subsequent studies. To achieve Dependability, researchers provide a "decision trail," which outlines all decisions made throughout the study. This allows others to understand how conclusions were reached and to replicate the study if needed (Creswell & Poth, 2018).

**3.10.3 Confirmability**

Confirmability requires that the research findings be directly linked to the data. While acknowledging the researcher's positionality is essential, researchers must ensure that their assertions and insights are firmly grounded in the data to make the knowledge confirmable. To ensure confirmability, the researcher documented and explained clearly how the data was analyzed and how conclusions were drawn; this may allow the audience to review and verify the study's process and findings (Patton, 2002).

**3.10.4 Reflexivity**

The concept of Reflexivity also enhances rigor in qualitative research. Reflexivity involves the researcher critically reflecting on the research process and their role in it. This includes examining how their biases, values, experiences, and presence may influence the research. Discussing Reflexivity requires acknowledging that knowledge about the social world is never entirely objective but is always shaped by the researcher's perspective (Berger, 2015). This was achieved as research maintained self-reflection to avoid bias, but discussing with colleagues and supervisors encouraged openness and accountability in interpreting data.

**3.12 Data Analysis and Presentation**

Data analysis systematically evaluates data through analytical and logical reasoning to uncover patterns, trends, or insights (Kothari, 2004). Since the study is qualitative, qualitative data analysis was adopted.

**3.12.1 Data Analysis**

The study adopted Burnard's methods of thematic content analysis (1991) to analyze the data, whereby a researcher began with familiarizing oneself with the data, followed by open coding where meaningful segments were identified and labeled. After coding, similar codes were refined and grouped into broader categories or themes. The themes were then reviewed against the original data to represent participants' perspectives accurately. Finally, the researcher interpreted the data, linking the themes to the research questions while using direct quotes to support the analysis. This method ensured that the findings remained grounded in the participants' responses.

**3.12.2 Data Presentation**

Data presentation involves visually representing data sets to convey information to the audience effectively. In this study, all qualitative data were presented using descriptive text to illustrate the relationships between various pieces of information. This Approach allowed researchers to communicate details that could not be effectively displayed using graphs.

**3.13 Ethic Consideration**

**3.13.1 Clearance Letter**

Before data collection began, the researcher secured a clearance letter and permission from the Open University of Tanzania, specifically from the Department of Social Work and Sociology. This Letter introduced the researcher to the Medical Officer in Charge of Tumbi Regional Referral Hospital and requested permission to conduct the study at the MAT clinic.

### **3.13.2 Confidentiality**

Privacy and safety of information are critical in any research study. Therefore, every

effort was made to ensure the anonymity of the participants and protect their identities. Their personal information was carefully concealed to prevent unauthorized individuals from accessing or tracing their identities (Orb et al., 2001).

### **3.13.3 Informed Consent**

In this context, all participants were informed about the study's objectives, methods, and goals, and their participation was entirely voluntary. Before the interviews began, both oral and written Consent were obtained from each participant (Silverman, 2017).

# **CHAPTER FOUR**

# **RESULTS PRESENTATION AND DISCUSSION**

## 4.0 Introduction

This chapter presents the findings from the survey that assessed the contribution of Medically Assisted Treatment (MAT) in supporting individuals with drug addiction at Tumbi Regional Referral Hospital.

## 4.1. Demographic and Social Characteristics

Thirty-six substance users, ranging in age from 20 to 60, participated in this study. The data revealed that most respondents were between 40 and 49 years old, accounting for 41.7% of the sample. In contrast, the youngest age group, 20 to 29, comprised only 8.2% of the respondents. Most participants were male, representing 91.7% of the total, while females made up 8.3%.Most respondents' residences were in Kibaha Town Council, representing 61.1% of the Population. Clients from Ubungo Municipal Council comprised 22.2%, and those from more distant districts accounted for 2.8%. Regarding education, most participants (63.9%) had completed primary education, while 25.0% had secondary education.

Regarding occupation, 47.2% were engaged in small businesses or entrepreneurial activities, whereas only 8.3% were employed in formal sectors. Concerning marital status, 36.1% of respondents were married, 25% were divorced or separated, and 22.2% were single. Regarding income, 50% of the clients earned between Tsh 250,000 and 400,000 monthly. Only a tiny fraction (2.8%) earned between Tsh 50,000 and 100,000, equivalent to about one US dollar per month. The detailed results are presented in Table 4.1 below.

**Table 4.1: Socio-Demographic Characteristics of the Study Participants**

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable** | **Category** | **Frequency (n)** | **Percentage (%)** |
| **Age (Years)** | 20-29 | 3 | 8.3 |
|  | 30 -39 | 13 | 36.1 |
|  | 40 -49 | 15 | 41.7 |
|  | 50+ | 5 | 13.9 |
| **Gender** | Female | 3 | 8.3 |
|  | Male | 36 | 91.7 |
| **Address** | Kibaha town | 22 | 61.1 |
|  | Kibaha Dc | 3 | 8.3 |
|  | Chalinze Dc | 2 | 5.6 |
|  | Ubungo Mc | 8 | 22.2 |
|  | Other places | 1 | 2.8 |
| **Education level** | Informal education | 2 | 5.6 |
|  | Primary education | 23 | 63.9 |
|  | Secondary education | 9 | 25.0 |
|  | Tertiary education | 2 | 5.6 |
| **Occupational** | Laborers (day worker) | 9 | 22.3 |
|  | Agriculture | 8 | 22.2 |
|  | Small business/entrepreneur | 17 | 47.2 |
|  | Professional (employed) | 3 | 8.3 |
| Marital status | Single | 8 | 22.2 |
|  | Married | 13 | 36.1 |
|  | Cohabiting | 6 | 16.7 |
|  | Divorced/separated | 9 | 25.0 |
| Monthly income (Tzs) | 50,000 to 100,000 | 1 | 2.8 |
|  | 100000 to 200,000 | 13 | 36.1 |
|  | 250,000 to 400,000 | 18 | 50 |
|  | 500,000 above | 4 | 11.11 |

## 

## 4.2 Contribution of Medically–Assisted Treatment

The study focused on assessing the contribution of Medically Assisted Treatment (MAT) in aiding drug users in their recovery. After analyzing the impact of MAT services on opioid users, three major themes emerged, which are discussed below: The study participants reported that Medication-Assisted Treatment (MAT) helped them reduce both psychological and physical cravings associated with addiction by normalizing their body's chemistry throughout the treatment process. With the support of MAT, they were able to stop misusing substances such as heroin, cocaine, and cannabis. Most participants experienced safer withdrawal with controlled cravings and minimized potentially dangerous symptoms. They also noted that MAT improved their medication adherence, increased treatment retention, reduced the risk of overdose and death, and decreased the likelihood of relapse. Additionally, MAT helped mitigate the harmful effects of drug and alcohol use, increased access to medical care and support services, and overall improved health outcomes. As one participant described,

*"First of all, the health benefits are significant. During my time using heroin, I was at high risk for infectious diseases like TB, HIV, and kidney failure. These issues arose because those who inject drugs often share syringes, which increases the risk of contracting HIV/AIDS. Those who smoke are also at a higher risk of acquiring TB due to sharing without knowing the health status of others. TB is an airborne disease, making it hard to understand how one might contract it. By sharing substances, one can easily acquire such diseases. MAT has helped me move away from that risky lifestyle."* (Male, 47 years old, cohabitation, secondary, from Mbezi, peer educator, three years in MAT program).

Another participant added,

*"Since childhood, I never had a medical insurance card, but through MAT, they helped us by organizing a group and registering us for the Community Health Fund (CHF), which is government-monitored insurance used in public facilities. This has provided me with access to healthcare support, allowing me to visit a nearby health facility whenever I need treatment."* (Male, 46 years; Kimara, unmarried, has a primary education, is a peasant, and has two years in the MAT program).

Through counseling and other supportive therapies, MAT services have helped individuals recover from dependence and gain insight into the factors that led them to misuse substances in the first place. During addiction, individuals often neglect hygiene, sanitation, diet, and living conditions. However, health education and interventions have helped limit the spread of infectious diseases such as HIV/AIDS and TB. Early interventions have also facilitated earlier diagnosis and prompt treatment, addressing issues at an early stage.

These findings are consistent with those reported by Bright-View (2024), which highlights several benefits of MAT clinics for individuals struggling with addiction. The journal argues that MAT combines medication with behavioral therapy and counseling to address both the brain's and body's physical dependence on drugs or alcohol. MAT can help individuals with opioid addiction by altering brain chemistry, reducing drug cravings and withdrawal symptoms, improving treatment retention and adherence, and decreasing the risk of overdose, thereby enhancing both physical and mental health (Bright-View, 2024).

According to MAT guidelines (2014), the benefits of MAT are optimized when programs are readily accessible, entry into treatment is prompt, and retention in treatment is high. Other factors include extended opening hours at clinics, provision of medically appropriate doses, clinicians with high morale and non-judgmental attitudes, as well as easy access to allied medical, psychological, and social welfare services. Clients in the clinic are supported to treat withdrawal; this condition can be harmful to the client if not correctly managed. When patients stop using drugs, they can experience various physical and emotional symptoms, including restlessness or sleeplessness, as well as depression, anxiety, and other mental health conditions. So through the treatment, the clients are helped to reduce these symptoms and quickly stop drug use (Gowing et al., 2011).

Also, staying in the treatment helps the clients retain therapy for a long time by allowing the brain to adapt gradually in the absence of drugs. These treatments act slowly to help prevent drug cravings and have a calming effect on the body system, something which can help the patient focus on counseling and other psychosocial therapies related to drug treatment and eventually enable them to prevent relapse to the addiction (Jones et al., 2015).

**4.2.2 Socioeconomic Benefits**

The study participants described how their relationships with relatives, family members, friends, and society have improved through the support of MAT services. They reported that before joining the MAT program, they had strained relationships with friends and family due to their behavior, which included stealing even from their own homes. Those around them often viewed them as a threat and chose to live on the streets to avoid contact with their relatives and neighbors. However, after joining the MAT program, their lives changed significantly. Counseling therapy helped them reconnect with themselves and foster love, emotions, and understanding towards others. As one participant put it:

*"Yes, the MAT program has enabled me to reunite with my family and society. Previously, people feared us and would not cooperate due to their negative perceptions. For instance, if someone gave me money to buy something, I would use it to buy drugs instead. Alternatively, if I were given a task to supervise, I would try to undermine it just to get some money for cannabis. However, now, I have made significant improvements."* (Male, 33 years, divorced, secondary education, Entrepreneur, on methadone for four years)

Another participant remarked

*"Through the MATthe program, my relationship with family has improved greatly, and I know I must take care of my family. As a responsible father, I understand that wake-up time for hustling and going, but previously, my mind did not think of it. Now I understand that some people should eat from my support, so I have to go and find one. During addiction, I could not do that; my concern was to wake up in the morning and look for drugs only. However, now I am aware that, in the morning, I have to provide Tsh 5000 for breakfast, in the afternoon, I have to provide Tsh 10,000 for them to buy mammals lunch and dinner, and when I come back at night, I will eat, and we laugh and enjoy".* (Male, 41 years, unmarried, primary education, Entrepreneur, Mbezi, two years on MAT program).

Another one added

*"MAT program has helped me a lot in many things; it has enabled me to build trust, develop networking, and lead to participation in different social events such as funeral ceremonies, religious and other social events. Society members have welcomed me well and have not judged my previous ways. MAT clinic has built solid trust and cooperation with other people. It has strengthened me spiritually and developed a fear of God; I now attend church prayers, which I thank God a lot for".* (Male 51 years, separated, secondary education, kibaha resident, employed, three years on MAT program).

Another participant mentioned,

*"I am grateful for the support and cooperation from my family. With my own money, I could perform traditional rituals to honor my father's memory. Additionally, I purchased a brand new wheelchair for 50,000 TZS for my sister, who was born with a leg disability. I transported the wheelchair to the Tanga region by bus, which is now being used at home."* (Male, 40, unmarried, have a primary education, is unemployed, from Kimara, and has two years in the MAT program).

Another one added

"*After joining this treatment, I have decided to return home and stay with my family. I have been jailed several times because of engaging in theft activities, which I used to do to get money to buy heroin. Now I have satisfied myself with the amount of money I obtain".* (Male 51 years, separated, secondary education, Kibaha resident, employed, three years on MAT program).

Also, another participant said;

"*MAT has enabled me to have money discipline and control spending. Before I joined the program, I never saved money. I used to spend unplanned and remain in debt, but for now, my money is well utilized in a well-organized manner; I invest in farming, my kids get food, and they go to school with proper uniforms and exercise books, things which I never did during the addiction period".* (Male, 36 years, secondary education, Entrepreneur, Kibaha, cohabitation, three years in MAT program)

Another client demonstrated how he felt relief after quitting drug dependence and being able to spend some years free from substance abuse by saying.

"*So far, there has been a huge advantage to me since I joined this program; this benefit I am receiving, I promised that the day I complete this treatment, if I fail to call adults to celebrate, I will celebrate with the children and give them gifts, because, I live peacefully with my wife and I take care for my children, knowing who went to school and who not and why that has happened. That is a huge benefit I have"*. (Male, 43 years, primary education, Entrepreneur, Kibaha, Cohabitation, four years on MAT program).

*"It is through the MAT program that I have expanded my social trust and networking skills. I have a boyfriend from here, MAT, with whom we live together. Previously, I had a person who was also addicted to heroin. We went into a confrontation and separated, but for now, I have another in the MAT program. MAT has also helped me to get jobs by meeting people who supported me in different ways, and I am in the process of opening my own NGO to motivate and support women to come out and speak about addiction because most of them have a fear of disclosing and even finding support. So I wish to launch NGOan for two things, t: to support women and link addicted individuals to jobs and generate income by linking them with institutions where they can get capital".* (Female, 35 years, cohabitation, tertiary education, Kibaha resident, Entrepreneur, 30 months on MAT program).

Significant improvement has been seen in the relationships between clients in recovery and their families, which has extended to acceptance by other community members. Families now benefit from the contributions of their recovering relatives, who can participate in discussions about family matters and progress. Many clients who previously lived on the streets have returned home, and those who had neglected their families have become responsible caregivers. These positive changes are a direct result of participating in the MAT program.

These findings align with the broader literature on the impact of addiction treatment on quality of life. According to Melemis (2015), individuals who recover from addiction through comprehensive treatment programs often report significant improvements in their physical health, emotional well-being, and social relationships. Methadone treatment has explicitly been shown to improve patients' ability to participate in family and community life and to reduce the negative social consequences of addiction (Amato et al., 2005).

**4.2.3 Legal Benefits and Behavioral Modification**

The study respondents reported significant changes in their behavior, moving away from harmful and criminal activities toward more legal and socially accepted behaviors. Many participants indicated that they are now involved in various economic activities, such as collecting and recycling waste materials like iron and bottles from the streets. They also noted receiving support from family and friends, which has helped them abandon criminal activities like robbery, which they previously engaged in to fund their heroin and cannabis use. Instead, they have turned to more acceptable and productive activities, working collaboratively with other community members to combat crime and its various forms. One participant shared during the interview:

*"Before joining the MAT program, I was involved in theft and robbery, which led to frequent conflicts with my family, as they strongly opposed drug use and disapproved of my lifestyle. However, since joining the program, I have stopped stealing and robbing because I no longer need to struggle to get money for heroin. As a result, my behavior has significantly improved compared to before".*(Male, 38 years, married, secondary education, Kibaha, Entrepreneur, three years in Mat program).

Another participant had the following:

*"I have been arrested by the police for drug-related issues more than four times and have been sentenced to prison for various periods, up to five years. However, since I joined this program, my life has changed significantly. I no longer have any pending trials at the police station or in court. I have stopped engaging in drug activities and have quit using heroin, sticking only to Methadone treatment."* (Male, 41 years, married, primary education, from Kimara, Business, two years on Mat program).

Another participant reinforced this point by saying,

*"I have made significant progress. I attempted to quit using heroin several times and stayed at a sober house without success. I spent three months there, but as soon as I returned to the street, I relapsed within a month. My relatives sent me back to the sober house, where I stayed for four months. After leaving, I struggled to maintain my sobriety and relapsed after about 21 days. Despite these setbacks, I am now free from withdrawal symptoms and have not used heroin for over three years now."* (Male, 52 years, married, primary education, Kibaha, peasant, four years in MAT program).

He continued by saying,

*"Also, before joining this program, I had no clear economic activities to engage in. Today, I may engage in collecting used bottles for recycling; tomorrow, you will find me searching for who has slept so that I can steal their property. Most of the time, the bottles I used to collect were not my target; they were just an activity to hide in as a gateway to determine where to go for stealing property and selling it. I also dealt with the supply of fake money. However, now I do not practice such activities anymore. In my lifetime, I have been arrested by police around four to five times and sent to jail once at Kigongoni prison at Bagamoyo and released under bail. However, since I joined the MAT program, I have never been arrested by the police due to family confrontation".* (Male, 52 years, married, primary education, Kibaha, peasant, four years in MAT program).

Another one added;

*"I have tried to quit drugs several times; I went to a sober house twice, but none of which succeeded. All the attempts failed, and I turned into an addiction. However, since I joined the MAT program, I have never been arrested or sentenced to jail for any illegal act. I used to engage in serious conflict with my family because of my behavior. You know, once a person is using drugs, he will have lost trust in society; when the withdrawal symptoms come, he can do anything to get money and buy heroin. So even love between you and the family members will disappear. So when I used to arrive home, the children were told to observe my actions and report so that I may not steal anything from home; there was no trust. However, now I have quit everything, neither alcohol nor any substance abuse or cigarettes. All I stopped since I joined MAT treatment. I used to take heroin, petrol, bhang, spirit, but Today I take none of them apart from Methadone" (Male 51 years, married, primary education, Kibaha, peasant, four years on MAT program).*

Another participant said,

*"Before joining the MAT program, I had no specific place to live; I used to move from place to place, finding income. So, no residence was identified as where you can find me. No! There was no such place. I may stay here for five days, and Kwa Mathias stay for two days, Tandale in Dar es Salaam stays for four days; that was my lifestyle, just looking for drugs. However, Today, I live at Msangani Kibaha with my family after starting treatment here at this clinic".* (Male, 31 years, separated, with secondary education, kibaha resident, employed, and three years in the MAT program).

Another one added;

*"I tried several times to quit substance abuse but was successful; I went to sober house habilitation centers bu, but all of them did not work. I stayed a year without smoking when I was in Kenya. Police arrested me more than ten times and sent me to jail. However, since joining the MAT program, I have not engaged in criminal issues at all"*(female, 35 years, cohabitation, tertiary education, Kibaha resident, Entrepreneur, 30 months on MAT program).

Most clients report significant improvements in their behavior, as they can now adhere to societal norms and traditions that govern social life. Previously, many drug users were frequently arrested due to their lifestyle, which involved living in disorganized groups and engaging in illegal activities like theft and robbery to fund their drug habits, including heroin and cannabis. During their addiction, they were indiscriminate in their thefts, stealing from anyone, including family members, leading to conflicts and strained relationships. Since joining the program, participants have benefited from the comprehensive services offered, alleviating the need to engage in criminal activities for money. The primary motivation for their previous criminal behavior was to obtain money for drugs. Still, with MAT (Medication-Assisted Treatment) and behavioral therapy, they no longer need to resort to illegal means. MAT addresses withdrawal symptoms and cravings, while behavioral therapy helps individuals develop healthier coping mechanisms and ultimately overcome dependence.

Many clients now report that they have not been arrested, have no criminal records or court history, and no longer live in gangs or lead risky lifestyles. This indicates that the combination of medication and therapy effectively supports long-term recovery.

These findings align with existing literature that emphasizes the relationship between substance use disorders and criminal behavior. Research by Dole and Nyswander (1988) shows that drug-dependent individuals are often involved in criminal activities to support their addiction. However, effective treatment programs, such as MAT, can significantly reduce criminal behavior by addressing the underlying issues related to substance use. Degenhardt et al. (2019) further highlight that individuals in MAT programs are less likely to engage in criminal activities, as they no longer need to commit crimes to finance their drug use.

Generally, the findings from the MAT program align with systems theory, which suggests that individuals are interconnected with their social environment, and changes in one area can influence others. Participants' recovery improved their physical health and restored family relationships, trust, and societal reintegration. MAT acts as a subsystem within the larger societal framework, enabling individuals to transition from criminality and addiction to responsible roles in their families and communities. This highlights how the personal progress facilitated by MAT positively impacts broader social systems (Bertalanffy, 1968; Carr, 2020; Thompson, 2015).

## 4.3 Societal Support Mechanisms Available to Support Recovery

The study also examined the societal support mechanisms available for aiding recovery from drug addiction. Respondents indicated that they receive moral encouragement and material support from various community members. The themes identified by the participants can be categorized into two main areas:

**4.3.1 Moral Support**

Most of the study participants reported receiving moral support throughout their recovery process. Family members and others in the community have shown cooperation upon noticing their involvement in the MAT program. This support has helped them adapt to new behaviors that align with societal norms. Many participants noted experiencing love, care, respect, and attention from others, which they had been denied during their addiction. They also mentioned being consulted on important issues, with their opinions being valued. Family members actively encourage them to adhere to their medication regimen to aid their recovery. As one participant noted,

*"My family supports me in many ways, encouraging and hoping to see me complete my treatment. They are now very pleased with my progress; we spend time together, talking and laughing, which was impossible before. Some relatives even ask to borrow money from me because they believe I have changed and reintegrated into the community."* (Male, 47 years old, cohabitation, secondary, from Mbezi, peer educator, three years in MAT program).

Another one added;

*"My family supports me morally; they always encourage me to keep up, and they contribute to convincing me spiritually to stay strong and not to turn back into addiction, which I appreciate daily."*(Male 51 years, separated, secondary education, kibaha resident, employed, three years on MAT program).

Another participant mentioned,

*"I thank God for my family's support. They provide me with moral encouragement, and when I face life challenges, we share the difficulties and work together to find solutions."* (Male, 33 years, divorced, secondary education, Entrepreneur, on methadone for four years).

Another one said,

*"I receive much support from my wife; she is the one who encourages me to stay in the treatment. My wife and children contribute morally by encouraging me to work hard to get money to cover transport costs the following day. They help my wife and children because they are the ones I live with"*. (Male, 49 years, separated, secondary education, kibaha resident, employed, three years in MAT program).

Most study participants reported that their commitment to treatment was significantly influenced by the moral support they received from family members and others in the community. The love and care provided by family members empowered them to adhere to their treatment plans and remain engaged with the clinic. Family members were noted for accompanying their loved ones to the clinic, sharing advice, offering encouraging words, and guiding them towards healthier lifestyles that could help them overcome substance abuse. This reflects the findings of Dehkordi et al. (2016), which highlight that families can be instrumental in the recovery process by providing emotional reinforcement and practical assistance. This supportive environment helps individuals feel valued and respected, enhancing their self-esteem and reducing feelings of isolation (Dole & Nyswander, 1988).

Limited moral support from the community was found to affect treatment adherence negatively, leading to missed doses and poorer recovery outcomes, sometimes even hindering progress. This is consistent with the findings of Degenhardt et al. (2019). They emphasized that societal stigma and lack of community support could hamper recovery efforts, leading to increased relapse rates and poorer treatment outcomes. Thus, moral encouragement is crucial as it fosters positive development and supports successful recovery.

**4.3.2 Material Support**

Study participants described how society contributes material support to their recovery process. They reported receiving essential needs such as food, shelter, and clothing, which they did not have before joining the MAT program. Some families assist by providing money for transportation, offering meals, and arranging accommodation. One participant noted:

*"My family plays a crucial role in my recovery. If I have trouble getting up in the morning, they remind me and make sure I go for my treatment. If I do not have bus fare, they help me so that I can attend my appointments at the clinic."* (Male, 34 years, secondary education, Entrepreneur, Kibaha, cohabitation, four years in MAT program).

Another one added;

*"My family has been incredibly supportive. They gave me the capital to start a business and care for me when I was sick. They are always there for me, offering everything I need. They also helped furnish my room and provided other essentials, as I had sold all my belongings during my addiction."* (Male, 41 years, primary education, married from Kimara, businessman, two years in MAT program).

Family support has been identified as a critical factor in ensuring treatment adherence. For individuals in recovery, maintaining long-term adherence to treatment requires solid social cohesion within the family. This support is crucial significantly as their financial situation changes when transitioning from illicit drug use to participating in a MAT program. Many clients experience a drop in income because they previously engaged in illegal activities. They often must travel daily from their homes to the clinic, which typically requires transportation. Material support from family and friends helps create a commitment to the treatment process, enhancing adherence and shaping positive behavioral changes. This support influences clients to stay on the right path toward recovery from addiction. According to Moos and Moos (2007), familial support enhances the likelihood of adherence to treatment by fostering a supportive environment that encourages recovery. The findings generally highlight the pivotal role of family support in the recovery process from addiction, which can be analyzed through the lens of Systems Theory. This theory posits that interconnected systems influence individuals' behavior and outcomes (Bertalanffy, 1968).

## 4.4 Challenges Facing Drug Users When Accessing Services at Mat Clinic

The study identified several challenges faced by individuals with drug addiction when accessing services at the MAT clinic, including:

**4.4.1 Social Stigma**

The majority of study participants reported experiencing stigma from members of society, particularly in public settings where their drug addiction becomes apparent. They noted that people often stigmatize them in public places and on public transportation, where some passengers may assume that their belongings are at risk of being stolen by drug users. Additionally, participants reported facing stigma and neglect from close friends and other members of the community due to their poor hygiene and appearance. As one participant explained:

*"Some communities have not fully embraced this program due to a lack of understanding. As a result, many still view us in the same negative light as before we joined the program. From my perspective, many clients here have undergone substantial changes. Perhaps an awareness campaign could improve understanding and reduce stigma towards those undergoing recovery."* (Male 52 years, primary education, unemployed, four years on MAT program)

Another participant mentioned;

*"Sometimes I face stigmatization, particularly in Picha ya Ndege in Kibaha. When people realize that you are a drug addict, they treat you very differently. I cannot quite explain why this happens, whether due to a lack of education or because the area is more remote, but it is much worse than in Dar es Salaam, where the stigma is less pronounced. As a woman, I experience less stigma compared to men, but it is still noticeable. Even my boyfriend, who is also recovering from addiction, faces difficulties. For instance, people are unwilling to lend him things because they remember him from his days of heroin addiction." Today they see him changed. Still, their actions to him are the same"* (Female, 35 years, cohabitation, tertiary education, Kibaha resident, Entrepreneur, 30 months on MAT program).

Stigma continues to be a significant barrier for individuals with drug addiction when it comes to disclosing their health status and adhering to treatment. Those who inject drugs are often viewed as being at high risk for other infectious diseases such as HIV, TB, and hepatitis. This stigma can deter some clients from joining treatment programs, resulting in a large number of individuals remaining untreated on the streets. Similar findings were reported by Laswai et al. (2017), who described this stigma as a "double stigma," particularly affecting those who are also HIV-positive. The combination of addiction and HIV status subject individuals to heightened levels of stigma. Study participants noted that being recognized as a person with an addiction often leads to the additional stigma of being presumed HIV-positive, which can discourage individuals from seeking treatment. As reported by Laswai et al. (2017), this stigma extends to the service providers themselves. Stigma significantly hinders treatment adherence, making individuals feel ignored, unsafe, and neglected, which undermines the goals of treatment and recovery. Therefore, reducing stigma is crucial not only for those with addiction but also for their supporters and family members, as it can be a significant barrier to accessing treatment at MAT clinics.

**4.4.2 Transport Challenge**

Study participants reported experiencing difficulties in accessing transportation from their homes to the MAT clinic at Tumbi Hospital. They encountered traffic jams on Morogoro Highway and faced a shortage of public transport services that traveled to the hospital. Additionally, they incurred costs for transportation, as clients are required to attend the clinic daily, regardless of the distance from their residences. One participant said:

*"The first challenge I face is transportation. Even if you have money and go to the bus stand, you might find the Bajajis (three-wheeled vehicles) full and wait a long time at the terminal for another to arrive. Sometimes, others might take a motorcycle taxi (bodaboda) and leave, so you end up waiting for transportation for a long time because you cannot afford to hire a bodaboda. This becomes particularly difficult near the end of the month when the budget runs out, and you do not have money for transport, forcing you to walk, which adds to the challenge."* (Male 51 years, separated, secondary education, kibaha resident, employed, three years on MAT program).

Another one added;

*"The main challenge is transportation. If you do not have the funds, you cannot get to the MAT clinic, which means you miss your doses."* (Female, 35 years, cohabitation, tertiary education, Kibaha resident, Entrepreneur, 30 months on MAT program).

Similar findings were reported by Laswai (2017), who noted logistical difficulties for many MAT clients when accessing the clinic. MAT requires daily attendance, which poses logistical challenges for many users. Some opiate users travel to the clinic by bus, while others walk. Those who use the bus often arrive late despite leaving early in the morning due to heavy traffic in Dar es Salaam. Many opiate users are unemployed, making it challenging to afford daily bus fare. Transport difficulties and the lack of funds for bus fares were cited as significant challenges in accessing MAT services at Muhimbili (Laswai et al., 2017). Currently, Tumbi MAT Clinic does not offer take-home doses (TAD) for clients who cannot attend the clinic daily. This lack of flexibility can result in missed doses for critical reasons. Allowing TAD would help address transportation challenges and other social issues for clients traveling from distant locations. It is essential to consider initiating TAD to support clients facing such difficulties.

**4.4.3 MAT Regulations**

Study participants reported facing challenges related to the regulations at the MAT clinic. Key issues include the strict admission criteria, which require clients to undergo lessons for 2 to 4 weeks before joining the MAT program. After enrollment, clients must continue attending learning sessions at least once a week. The process also involves multiple consultations and repeated assessments of their readiness. Additionally, clients are subject to daily inspections of their belongings and appearance before entering the clinic. Frequent follow-ups and close monitoring are conducted for ongoing reassessment.

One of the participants said:

*"The challenge I face is related to the time restrictions for accessing services. The clinic opens at 6:30 a.m.; anyone arriving after 9:00 a.m. is considered late. Since I usually wake up around 7:30 a.m., I have to wake up at 6:00 a.m. daily, which is a significant burden for me."* (Male, 53 years, cohabitation secondary education, businessman, three years on MAT treatment).

"*The regulations at MAT can cause clients to quit treatment. For example, if a client is found using alcohol even for one day, they will be tested for over three months. Similarly, if a client is caught smoking cannabis, they are required to attend educational sessions and return with a coupon. Some clients find it difficult to tolerate these strict rules."* (Male, 40 years old, unmarried, has a primary education, is unemployed, and has two years in the MAT program).

Another one added,

*"Peer educators hold significant authority at this clinic; they conduct daily inspections and oversee everything as if they have fully recovered, even though they have not. They have not been properly trained to care for us. I recall an incident where a peer who had quit the treatment took my cap, and I later saw him wearing it on the street."* (Male 36 years old, secondary education Kibaha, Entrepreneur, 3 years in MAT program).

Similar findings were reported by Laswai et al. (2017), where study participants also noted spending significant time at the clinic waiting to receive methadone. The clinic has only one window for dispensing methadone to all clients. The waiting time was reported to vary widely, ranging from ten minutes to three hours, depending on the client's position in the queue. This was seen as a challenge, as many clients preferred quickly obtaining their dose and leaving to continue with their other activities.

**4.4.4 Financial Difficulties**

The study participants reported experiencing financial difficulties that hindered their access to services at the MAT clinic. They struggle to cover the daily transportation costs from home to the clinic. Most of them lack stable employment opportunities and have a troubled history involving criminal activities, which further limits their ability to generate income. One participant said*,*

*"Another challenge is that sometimes I wake up without money for transportation, which I cannot afford daily. As a result, I have to walk a long distance to reach the clinic for treatment."* (Male, 52 years, primary education unemployed, four years on MAT program).

Another participant said;

*"For me, the biggest challenge is waking up when I do not have any money. This means I have to walk long distances for extended periods to reach the clinic. I do not have a stable job or reliable activities to earn a steady income. Currently, my only source of income is through day labor."* (Male 49 years, primary education entrepreneur, 40 months on treatment).

Another participant added;

*"I am staying far from here in the area known as Lulanzi; when I miss funds to cover transport fare, I am supposed to walk a very long distance and spend nearly one and a half hours because I live in north Lulanzi, for instance, today I walked because of financial challenges." (Male, 53 years, secondary education, Entrepreneur, cohabitation, and Kibaha resident, four years in the MAT program.*

The lack of financial resources can significantly impact access to MAT services in several ways. For instance, low-income individuals may struggle to afford bus fare, which can result in missed doses and limit their opportunities for health improvement. Financial scarcity can also affect their ability to meet basic needs, leading clients to prioritize work over attending treatment, thus compromising their adherence to the program. Consequently, low-income individuals may face difficulties managing daily expenses, leading to delays in attending the clinic and receiving essential healthcare.

Similar findings were reported by Laswai et al. (2017), where participants noted that their past involvement in harmful activities to support their drug use and daily needs diminished once they entered the treatment program. They no longer felt the need to commit theft, but many remain unemployed and now face challenges managing their daily lives, including securing regular meals. A study by Vashishtha et al. (2017) pointed out that MAT infrastructure and cost are among the factors for persons suffering from OUD, and MAT remains the clinical gold standard for treatment.

Generally, the challenges participants face in accessing medically assisted treatment (MAT) can be analyzed through Systems Theory, which highlights the influence of interconnected elements within a system. In this case, the system comprises the individual, the healthcare system, socioeconomic factors, and societal perceptions. Community stigmatization, limited transportation, and strict clinic regulations are external pressures that destabilize the individual's recovery efforts (Bertalanffy, 1968). These barriers disrupt the system's homeostasis as individuals struggle to balance their recovery with logistical and societal challenges (Schumm & O'Farrell, 2013). Negative feedback, like continued stigma, hinders their reintegration into society, while financial difficulties and inadequate transportation impede access to treatment (Hawkins et al., 1992). These findings illustrate how external environmental influences can obstruct or support recovery, calling for systemic adjustments to promote stability and better outcomes for individuals undergoing MAT.

# **CHAPTER FIVE**

## SUMMARY, CONCLUSION, AND RECOMMENDATIONS

## 5.0 Introduction

This chapter summarizes the findings from the survey and offers recommendations on the role of medically assisted treatment (MAT) in supporting individuals with drug addiction at Tumbi Regional Referral Hospital.

## 5.1 Summary

MAT programs designed to support drug-addicted persons to overcome dependence caused by substance use disorder have numerous significant contributions in many spheres of life, including socioeconomic, medical, and legal benefits. The combined psychological therapy and medical treatments for addicted individuals enable recovery and have a potential connection with society during recovery journey. Despite the benefits, limited studies have been published on the contributions of MAT services especially in low income countries like Tanzania knowing that, the journey towards recovery has never been easy different obstacles from structural, social, and individual levels. Thus this Qualitative study enabled to bridge that gap and answered the research questions.

## 5.2 Conclusion

MAT services are highly effective for supporting addiction recovery, demonstrating significant improvements in both general and mental health among drug users. The study has highlighted various contributions and challenges related to accessing MAT services at Tumbi Regional Referral Hospital in the Pwani Region of Tanzania. The benefits of accessing MAT services for drug-dependent individuals are substantial, and the societal support mechanisms available are extensive. However, the study also identified several challenges these individuals face in accessing MAT services.

Stakeholders and the management of the MAT clinic must address these barriers to improve the mental health of those seeking addiction recovery and to enhance the well-being of the community. The findings are expected to guide the management of Tumbi Hospital, stakeholders, other implementing partners, and the Government of Tanzania, particularly the Ministry of Health (MoH), in developing an effective, evidence-based strategy to enhance the accessibility, quality, and utilization of MAT services in Kibaha Town, Pwani Region.

## 5.2 Recommendations

The study provides valuable insights into the impact of the MAT program on individuals with drug addiction, highlighting both the benefits and the challenges associated with accessing these services. The findings underscore the significant contributions that MAT services make toward supporting recovery and improving mental health and the societal mechanisms that aid in this process. However, it also reveals several obstacles that drug users encounter while seeking MAT services. Based on participants' suggestions and data analysis, several recommendations emerge to enhance the effectiveness of the MAT program and support those struggling with addiction. Firstly, promoting MAT services is crucial for maximizing their impact. The study recommends that stakeholders and the management of MAT clinics work to raise awareness about the program and its benefits. Increasing community knowledge about MAT services can help individuals better understand how these services support addiction recovery. Additionally, there is a need for educational programs that address the effects of substance abuse, aiming to reduce the prevalence of drug use and break the cycle of addiction. Such initiatives would inform the public and foster a more supportive environment for those seeking help.

Enhancing societal support is essential in addition to promoting MAT services. The study emphasizes the importance of continued moral support from community members, including expressions of love, care, and encouragement. Society benefits from assisting clients by escorting them to treatment, supervising their progress, and monitoring their environments to prevent exposure to risky situations. Moreover, providing material support, such as basic needs and financial assistance for transportation, is critical in helping individuals remain committed to recovery.

Another key recommendation is to address the challenges faced by drug users in accessing MAT services. The study suggests developing a comprehensive plan to tackle the obstacles identified. This plan should focus on creating a more accessible and supportive environment for service provision, which would encourage more individuals to seek help. The program can improve its reach and effectiveness by overcoming these challenges, benefiting the individuals in recovery and the broader community.

In summary, the study highlights the positive impact of MAT services on addiction recovery and the critical role of societal support. It also identifies significant barriers to accessing these services and offers recommendations for improvement. By promoting awareness, enhancing support, and addressing logistical challenges, the MAT program can be more effective in helping individuals overcome addiction and improve their mental health, ultimately benefiting society as a whole.

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**APPENDICES**

# **Appendix I: CONSENT FORM**

**FOMU YA KUOMBA RIDHAA YA KUHOJI WALENGWA WA UTAFITI**

**Utangulizi na Lengo la utafiti:**

Kutokana na uhaba wa tafiti zilizofanywa na kupelekea uchache wa takwimu na zinazohusiana na matumizi vya mchango wa vituo vya kuhudumia waraibu wa dawa za kulevya hapa nchini umepelekea kuwa na changamoto ya kupima ubora na matumizi sahihi ya huduma zinazotolewa kwenye vituo hivyo. Jambo hili linalopelekea kushindwa kubaini iwapo huduma zinazotolewa ni rafiki na zinawafikia walengwa kwa wakati au la. Utafiti huu unaazimia kujikita kujaza pengo la ufahamu juu ya mchango wa uwepo wa vituo vya kutolea huduma kwa waraibu wa dawa za kulevya, matumizi na ubora wa huduma zitolewazo katika kituo cha huduma kwa waraibu wa dawa za kulevya hapa hospitali ya Tumbi, Wilayani Kibaha. Ili kutimiza azima hii, tunafanya utafiti wa kimwenendo /hulka kwa kuwahoji waraibu wa dawa za kulevya wanaopata huduma kisaikolojia na matibabu katika hospitali ya Rufaa ya Mkoa wa Pwani Tumbi.

**Je naweza kushiriki?**

Utafiti huu utahusu waraibu wa dawa za kulevya waliojiandikisha katika kliniki ya MAT hospitali ya Tumbi ambao wanafika kwa ajili ya tiba hususani mwenye umri wa kati ya miaka 18 nakuendelea. Kama wewe unasifa tajwa hapo juu, unaruhusiwa kushiriki kwenye utafiti huu. Pia, una uhuru wa kufanya maamuzi ya kushiriki au la. Kushiriki ni kwa hiyari na unaruhusiwa kusimamisha ushiriki wako muda wowote na tutaheshimu uamuzi wako. Hauta ulizwa sababu ya kuahirisha ushiriki wako na wala hakuna adhabu yoyote itakayotolewa dhidi yako, lakini ni furaha yetu iwapo utashiriki.

**Faida za kushiriki**

Hatuwezi kuahidi utafiti huu utakusaidia wewe binafsi lakini taarifa zitakazopatikana zitasaidia serikali kupitia Wizara ya Afya katika juhudi za kuboresha huduma za afya kwa waraibu wa wa dawa za kulevya na jamii kwa ujumla

**Madhara ya kushiriki**

Hatutarajii kutokea madhara yoyote kwako wakati wa kushiriki katika utafiti huu

**Mtu wa kuwasiliana nae kwa maswali zaidi au kama kuna malalamiko yoyote**

Unaweza kumuuliza mtafiti mkuu swali lolote au kama una wasiwasi na jambo lolote. Kama hautaridhishwa na majibu yake unaweza kufika moja kwa moja chuo kikuu huria cha Tanzania tawi la Kibaha kwa msaada zaidi. Hivyo unaweza pia kuwasiliana moja kwa moja na: **Haruna Msoke** ambaye ndiye mtafiti kiongozi wa tafiti hii kwa namba ya simu 0713 778 827 au kwa njia ya tovuti ya : [hmsoke@gmail.com](mailto:hmsoke@gmail.com)

**Usiri:**

Ni ahadi yetu kwako kuwa, taarifa zote zitatunzwa na kudhibitiwa kwa usiri. Kama ilivyoelezwa hapo mwanzoni, zoezi hili la utafiti litahusisha kukusanya taarifa za mchango wa huduma za MAT kwa waraibu wa dawa za kulevya, hivyo Jina lako na taarifa nyingine zozote zinazoweza kukutambulisha hazitakuwa kwenye nyaraka zozote. Taarifa kuhusu mhojaji pia zitaondolewa.

**Hiari ya kushiriki.**

Ni furaha yetu kuona unaridhia kushiriki utafiti huu kwa faida ya jamii na Taifa kwa ujumla.

**Ridhaa:**

Mimi,………………………………………………….. (jina la mshiriki) nimesoma na kuelewa maelezo haya, nimeelewa na niko tayari kushiriki kwenye utafiti huu.

saini: ……………………… Tarehe: ………………….

Jina la mtafiti (Msaidizi) ………………………………………………

Saini: ……………………….. Tarehe:…………………

**APPENDEX II: DATA COLLECTION TOOL**

**Interview guide for drug addicted individuals**

Being a drug addicted individual, enrolled at MAT clinic, Tumbi regional referral hospital, I request you to provide answers to the questions contained in these question. The information gathered will be used for research purpose only and not otherwise. Throughout the process, anonymity will be observed. I thank you in advance for your voluntarily willingness to participate in this study.

**SECTION A: Demographic Particulars;**

* + - 1. What is your Age…………………..
      2. What is your Sex…………….
      3. What is your Education level…………
      4. What is your Address……….
      5. What is your Occupation………..
      6. What is your Marital status…………
      7. What is your Status at clinic…………….

**SECTION B:** We would like to ask you some questions about the contribution of MAT services toward recovery from addiction

1. Where did you live before joined MAT program?
2. Now, where do you currently live?
3. Before joined MAT program, what activities did you engaged in?

* How about now?

1. Is there anyone from family or friends who support you financial in terms of meals and accommodation?
2. Do you get your income legally? Can you compare before and after joined the program?
3. What was the drug administration method did you used?
4. Have ever tried to quite from using drug voluntarily?

* If yes, for how long did

1. Have ever arrested by police for drug allegation or other related crimes like thieves?

* How long did they lock you?

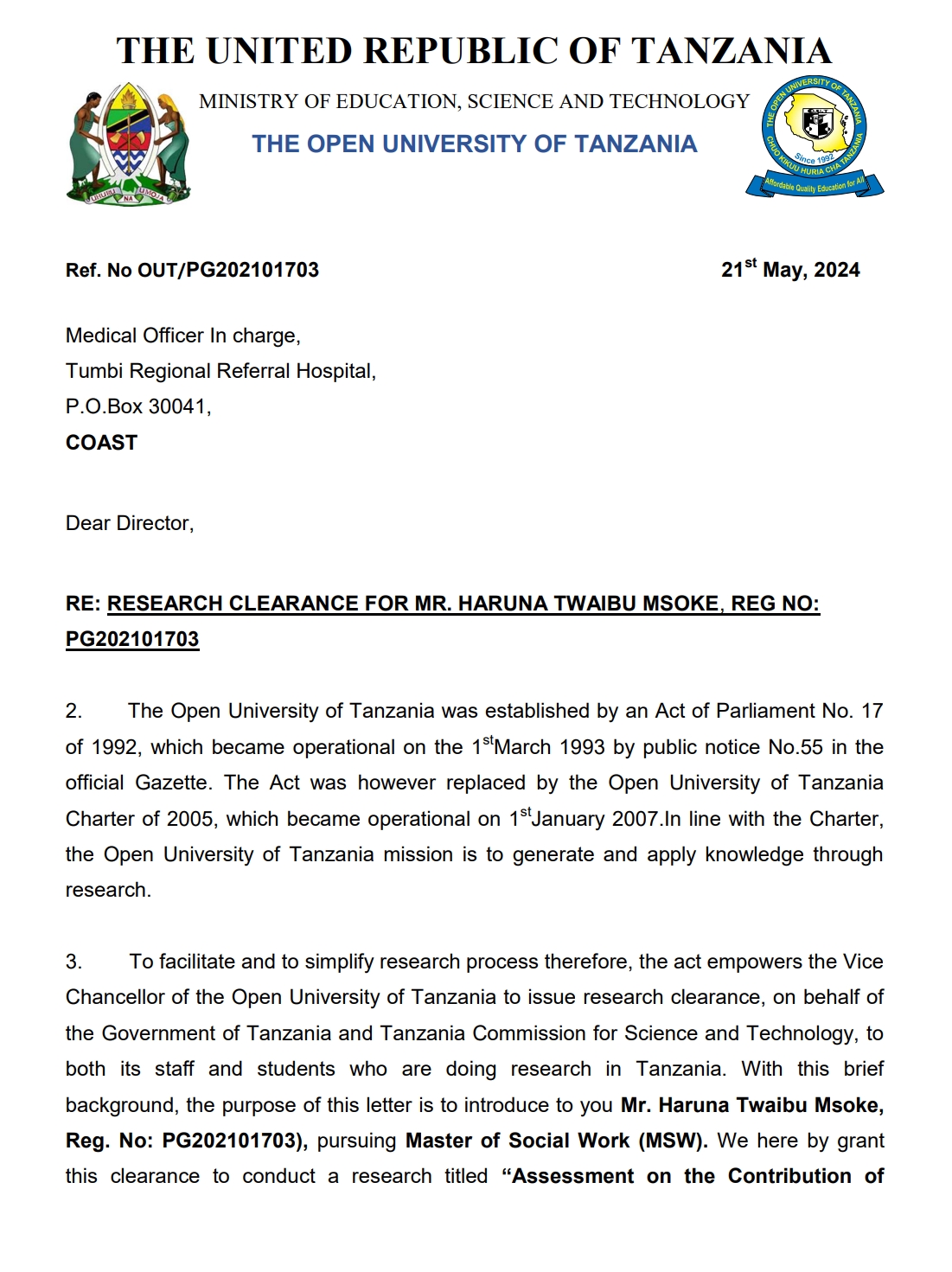
1. Have you ever been sentenced to jail?
2. Currently, what is your style of living? With parents, relatives, cohabitation or with wife?
3. Have ever engage in conflict with your parents, siblings or neighbors due to drug issues?
4. Do you have a reliable source of income?

* Why?

1. Do you take alcohol?

* Why?

1. Currently what is your relation with family and friends after joined MAT program?
2. What so special have you acquired since joined MAT program?

**RESEARCH CLEARANCE LETTER**

