

**A COMPARATIVE ANALYSIS OF THE IMPACT OF VOLUNTARY AND
INVOLUNTARY ATTENDANCE IN REHABILITATION CENTERS ON
SUBSTANCE USE DISORDER RELAPSE RATES IN GILGIL SUB-COUNTY,
NAKURU COUNTY**

BY;

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DECLARATION

I declare that this research is my original work and that it has not been presented in any other university for academic credit.

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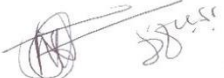
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DEDICATION

I dedicate this work to my family especially my parents who have been instrumental in encouraging and facilitating my studies at Africa Nazarene University. Special dedication goes to my father Severin Kinuthia and my mother Mary Wairimu, my sisters Scola Waithira and Albina Mumbi.

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ABSTRACT

The problem of drug abuse has become a major source of concern to both the government and society in Kenya. Substances abused include alcohol which is the substance that is most abused and other legal and illegal substances. Inpatient rehabilitation programs for patients with substance use disorder have been the accepted method of treating the disorder. However, efforts aimed at rehabilitating addicts using the ninety-day residential treatment regime often fail as those who go through the program often go on to relapse. In many of the cases relapse had occurred more than once following the three months program. The purpose of the study was to find out the effect of voluntary and involuntary attendance to rehabilitation centers on relapse rates in Gilgil Sub-County of Nakuru County. The objectives of the study are to examine the effect of voluntary treatment in rehabilitation centers on relapse rates in Gilgil sub-County; to assess the effect of enforced treatment in rehabilitation centers on relapse in Gilgil Sub-County. Enforced treatment can include coercion from family members, the government or the employer to ensure patients attended treatment in rehabilitation centers in Gilgil sub-County. The study was based on the Self Determination Theory which lays emphasis on human motivation as a factor in the decisions people make in their lives. The target population was estimated at 600 comprising male clients who had undergone the ninety day program in the last five years within Gilgil Sub-county by the time of the study and had stayed for at least three months since the completion of the program. A sample size of 86 former clients of rehabilitation centers was obtained using simple random and purposive sampling techniques. Data was collected using structured questionnaires and in-depth interview schedules. The data generated by questionnaires was analyzed descriptively by use of frequencies, percentages and means and inferentially by use of Pearson correlation and regression analysis. The researcher made use of electronic means to reach out to the respondents, including electronic mail and messaging. Qualitative data from interviews was subjected to content analysis. The findings indicated that of the 42 (48.84%) of the respondents who attended treatment voluntarily 17 (40.70%) remained sober for over a year, 11 (26.74%) were sober for 8-12 months, 5 (11.90%) remained sober for up to 7 months and 9 (21.40%) remained sober for 3 months. Of the 44 respondents whose attendance was involuntary, 11(25%) relapsed within three months of leaving the treatment facility, 26(59.09%) relapsed after three months, 4 (9.09%) have been on and off treatment, while 3 (6.81%) are under psychiatric care. The research concluded that voluntary attendance has a higher rate of success and should be encouraged, while the use of coercion should be avoided unless there is possibility of harm to the client and others. The beneficiaries of this study are the victims of substance abuse who have had to undergo forceful addiction treatment, families with members suffering from substance abuse, rehab administrators, therapists and the government of Kenya, all of whom have been grappling with the issues of relapse following addiction treatment for substance abusers and the social, economic implications of failed substance addiction treatment.

DEFINITION OF TERMS

Addict: A person who is physically unable to do without a harmful drug and finds it extremely difficult or impossible to live without it despite the substance doing the person harm. The person suffers withdrawal symptoms if they attempt to go for a time without the substance. People can also get addicted to behaviors such as gambling, eating, shopping, the internet and viewing pornography.

Addiction treatment: Long-term intervention intended to help addicts stop compulsive use of substances and behaviors. It includes psychotherapy and medication and can be outpatient or inpatient. Inpatient stay in an institution can last for between one month and three months where the client has little or no access to the outside world. Experts in the field recommend a minimum three months stay.

Addiction: Derived from Latin *addicco* meaning enslaved (Miller R. 2011), this is when one is abnormally tolerant to and dependent on something that is psychologically or physically habit forming (especially alcohol or narcotic drugs). When compelled to stay for an extended time without the substance, the abuser gets withdrawal symptoms, some of which can be fatal. Users continue to abuse their drug of choice even when it is causing them great harm, as they cannot do without and are incapable of stopping on their own without help. Abusers develop tolerance and attempts at cutting down or stopping always fail. DSM -5 prefers to use Substance Abuse Disorder as the term addiction has negative connotations. (APA, 2013)

Behavioral therapy: Therapy that seeks to treat mental disorders through behavior change. This involves a relationship between a trained therapist and a client and uses various techniques. It is essentially talk therapy through which the client comes up with the solution.

Coercion: The process of pressuring someone to do something by using force or threats against his or her will. Substance abusers can be coerced into treatment through the use of judiciary injunctions, or by way of withdrawal of services such as housing, food and contact by family members.

Drug rehabilitation: The process of medical and psycho therapeutic treatment for dependency on drugs such as alcohol, prescription drugs and illegal drugs. This can be done on an inpatient or outpatient basis.

Drug: Any substance that causes a change in an organism's physiology or psychology. In this case it is a substance that is used to gain pleasure, but which ends up harming the user. Drugs that are abused can be both legal and illegal.

Lapse: A single return to use of the drug of choice after leaving treatment followed by a return to sobriety. This should not be confused with relapse.

Medicated Assisted Treatment: The use of certain FDA and WHO approved medications which have been proved to help control addiction. Knowledge about these medications is still scarce and research is still ongoing on their efficacy, but they are a vital tool in the fight against substance abuse. The three medications which have been approved for alcohol abuse are Naltrexone, Disulfiram and Acamprosate, while methadone is used for heroin. Others are used to aid in tobacco smoking cessation such as Bupropion (Zyban).

Rehab: Short for Residential Rehabilitation where drug addiction treatment is provided in a residential setting. In Kenya the vast majority of these institutions are privately ran as commercial enterprises by individual investors.

Relapse: Return of an illness following treatment. Return to the problematic consumption of substances after a period of abstinence following addiction treatment.

In the case of substance abusers, there have been reported cases of multiple relapses where the client has been in and out of the rehab many times.

LIST OF ABBREVIATIONS

AUDIT	Alcohol Use Disorders Identification Test
BBC	British Broadcasting Corporation
CDC	Center for Disease Control
EOI	Emotional Over-Involvement
FDA	Food and Drug Administration
FGD	Focus Group Discussions
NACADA	National Authority for the Campaign Against Alcohol and Drug Abuse
NACOSTI	National Commission for Science, Technology & Innovation
NDLEA	National Drug Law Enforcement Agency
SDT	Self Determination Theory
SPSS	Statistical Package for the Social Sciences
UNO	United Nations Organization
USA	United States of America
WHO	World Health Organization

CHAPTER ONE

INTRODUCTION AND BACKGROUND OF THE STUDY

1.1 Introduction

The study examined whether voluntary and involuntary attendance to rehabilitation centers for substance abuse disorder (SUD) treatment has an effect on relapse rate. The study was done in Gilgil Sub-County which is one of several sub counties making up Nakuru County, within the Rift Valley region of Kenya. This chapter includes the following sections of the study, which are the background to the study, statement of the problem, purpose of the study, specific objectives of the study, research question, hypothesis, significance of the study, delimitation of the study, limitation of the study, theoretical framework, and conceptual framework.

The study will start with the widely accepted definition of substance abuse disorders in the mental health field. The Diagnostic and Statistical Manual of Mental Disorders 5 (APA, IDSM 5 2013), places substance abuse disorders under ten different classes of drugs. These include alcohol, caffeine, cannabis, hallucinogens, inhalants, opioids, hypnotics, anxiolytics, stimulants (amphetamines, cocaine,) tobacco. All drugs taken in excess activate the brain's reward system which is involved in the reinforcement of behaviour and the production of memories. Substance abusers tend to have great memories of past use which reinforces continued abuse of the substance. Normal activities may be neglected as drugs activate the brain's reward pathways, producing feelings of pleasure sometimes called by substance abusers as "*high*". People with lower levels of self-control may be predisposed to develop substance use disorders, and this suggests that the roots of substance use disorder for some persons can be

detected in their behaviour long before they start using substances. (APA, DSM 5 2013).

Substance induced disorders that require addiction treatment can be split into two categories. One is substance abuse disorders and the second is substance induced disorders. The former is the uncontrolled use of the substance despite negative outcomes, while the latter involve conditions that are induced by substance abuse such as intoxication, withdrawal, psychotic disorders, bipolar and related disorders, depressive disorders, anxiety disorders, obsessive compulsive disorders, sleep disorders, delirium and sexual dysfunction disorders.

Diagnosis of substance use disorder (SUD), has several criteria. (APA, DSM 5 2013). In the three criteria there is impaired control, social impairment, and risky behaviour. In the first category there is the taking of the substance in larger amounts over a longer period than was originally intended. The user may express the desire to cut down or stop taking the substance or regulate the use of the substance unsuccessfully. Increasing amounts of time are spent by the abuser in obtaining the substance, in abusing the substance, using it, or recovering from the effects of using the substance. In severe cases the person's total daily activities revolve around the substance. Craving has also been shown to involve classical conditioning and is often used as an indicator of impending relapse for substance abusers who have just gone through treatment and a period of abstinence. Social impairment is the failure of the person to fulfil social obligations involving school, work, and home. Interpersonal problems crop up, but the person continue to use the substance. Important social, occupational, or recreational activities are given up because of substance use. Withdrawal and self-isolation from family may occur. The other criteria which involve risky use is where the person continues to use the substance in risky situations such as

driving under influence or operating dangerous machinery despite the danger. Tolerance develops where the person abusing the substance takes more of the substance in order to get the same effect. Attempts to stay for an extended period of time without the substance leads to withdrawal symptoms some of which include physiological reactions such as delirium-tremens (uncontrollable shaking for alcoholics), shaking, substance-induced psychotic disorder, and substance induced depressive disorders. Sleep patterns are disrupted.

This is the person who has to undergo substance abuse treatment and whose attendance to rehab can either be voluntary or involuntary.

1.2 Background of the Study

The World Health Organization (WHO) and the United Nations Office on Drugs and Crime (UNODC) in 2021 had estimated that the number of people abusing substances in the world was thirty-five millions. (WHO News Release, November 12, 2021). Globally substance use disorders are the second leading cause of disability among the mental health disorders. (Lancet June 2019). In the USA, 50% of adults over the age of 18 years are regular drinkers of alcohol with only 21% of them being lifetime abstainers. (Pleis et.al. 2009). In Africa there is a high age standardized alcohol attributed deaths, disability and lost production averaging 70.6 deaths per 100,000 people (Hammer J.H, et al April 2020). The cost per head was estimated at 800\$ (Rehm J., et al 2009) due to the impact on crime, health system and productivity. (International Narcotic Board, 2013). Treatment availability is low with 87% of those needing care being unable to access it. (Zewdu S.G, et al 2019)

In Kenya over 10% of people aged 15 years to 65 have Alcohol Use disorder (AUD), with 60% of those having the severe kind. (NACADA 2017). There is early

onset of substance abuse with children aged 11 years already using (NACADA, 2019). One in every six Kenyans was using at least one drug or substance. One in every five adult male and sixteen in every female was using a substance or a drug. (NACADA 2022).

Substance abuse is a growing concern in Nakuru County and in particular Gilgil sub-county. According to the county government of Nakuru, the Ministry of Health Key Population Size Estimate (KPSE) report reveals that over 26,673 individuals were affected by drug abuse including a number who injected drugs. (Nakuru.go. ke. 2023). Commonly abused substances in Nakuru were Alcohol, tobacco, bhang, and khat. Girls in secondary schools also abused emergency pills, alcohol, pain killers, sedatives and antibiotics. (Okita D. O 2018) To address the issue, the department of health in the county has partnered with non-government organization Hope World Wide Kenya (HWWK), to do harm reduction through a holistic approach combining education, prevention and support systems. To facilitate this the County government has encouraged private entities and individuals to set up rehabilitation centers in the area.

SUD in Kenya is addressed by the Mental Health act of 1989 (Republic of Kenya, Mental Health Act, 1989) which is outdated and focuses on institutional care. This act did not address stigma, access to care, and the rights of persons with mental health disorders. The Mental Health (Amendment) Bill 2018, was passed by the senate in 2020 and is awaiting implementation. (The Mental Health (Amendment) Act, 2020).

The widely accepted method of treating victims of substance use disorder has increasingly been rehabilitation, both outpatient and inpatient with the latter being the preferred treatment strategy. The problem that faces addiction treatment universally has been the global issue of relapse, which is the return to problematic use of the substance

following addiction treatment.(Eric K, et.al. 1st February 2021) Scholars studying substance use disorder have attempted to gain a firm understanding of the reason for relapse. The accepted method of treating substance abuse has increasingly been the use of residential rehabilitation, normally shortened to rehab, where those who have been suffering from the condition are treated in an inpatient facility. In such institutions, psychotherapy, work therapy, detoxification, medication, and other strategies are used to help the client manage to live without substances. The normal length of the stay in these institutions is between one month and three months with three months being the recommended length of stay. Some, depending on the severity of the disorder can stay longer. Many of these institutions are privately ran with the government only providing a supervisory role. There is one government ran rehab at Mathari Hospital, but the rest of these institutions are privately run. Many are run as community-based organizations despite the fact that all offer medical services such as detoxification and anti-psychotic medication for clients with mental illnesses. Supervision of rehabs is loosely shared with the National Authority for the Campaign against Alcohol and Drug Abuse (NACADA and the Ministry of Health. The standards for rehabilitation of persons with substance use disorders were developed to deal with the difficult problems of treating such people. Those standards are for the regulation, supervision and monitoring of residential treatment and rehabilitation centers and also for nonresidential facilities that offer outpatient services. For the purposes of this study, the researcher focused on the residential rehabilitation centers which are referred to as rehabs. The standards specifically advise on the best practices and discipline of the licensed rehab operators, ensure professionalism in the treatment and rehabilitation of persons with Substance abuse Disorders (SUD), provide guidelines and minimum requirements for service providers to ensure the rights of persons with SUDs and their families are protected,

define the services and procedures the facility will provide to clients, provide clear guidelines on intake, screening, assessment, placement, documentation, discharge planning and other core areas of treatment. The standards ensure that clients seeking services get value for money and are not exploited and are insured. There should be a basis for supervision and evaluation of treatment and the rehabilitation process. For this particular study the key words are the guidelines on intake, screening, and assessment as it in this stage that the concept of voluntary or involuntary admission comes to the fore. The NACADA guidelines are mostly silent on this topic, only mentioning informed consent over treatment procedures and participation in research. There is no mention of coerced treatment in the guidelines. The rights of the client are only mentioned in relation to their treatment while in the rehab and include rights and freedom from all forms of discrimination. (NACADA Rehab Guideline Abridged, 2018)

Families take their loved ones to these places with high hopes that they will be helped to end their dependence on substances. The three months stay in the rehab seems to give reason to these hopes as the clients health improves as appetite comes back, lost weight is gained back, and the overall condition of the client improves tremendously as other medical conditions which normally accompany substance abuse are treated. But relapse which is the return to problematic use of the same substances that had led to admission in the first place continue to take place at very high rates with studies showing rates of between sixty and eighty percent. The frustrating fact for all concerned such as the families, the government, the therapists and the clients themselves is that relapse has continued to take place despite all the spirited efforts to rein in on it. One area of interest has been the nexus between voluntary and involuntary enrollment in rehabilitation centers and relapse tendencies. Getting substance abusers, who are

always on the defensive and ready to deny they have a problem with substances, to seek treatment is not always easy and increasingly many of the affected have to be pressured into treatment by various means.

Involuntary attendance can also be referred to as coercion, or compulsory attendance to treatment. Worldwide, involuntary interventions for substance abuse are common, and their efficacy, approach, and risk of harm to people who use drugs are subjects of much debate. Many parents have complained that their loved ones came out of rehab and after relapse took more of the substance than they used to before treatment. The essence of coerced treatment is to enforce alternative consequences to motivate client to agree to go for treatment when substance abuse is shown to be having negative consequences on the client and others. The client will be compelled to agree in order to escape such consequences as job loss, jail time, loss of benefits or expulsion from home. (Norman S. Miller June 25th 1999). It is argued legally enforced addiction treatment is better than sending people to jail, but the evidence does not show its effectiveness in reducing drug use. One 2018 study in the USA analyzed the experience of those who had been committed to rehabs by the courts, and on average found that the all relapsed in seventy two days, with some relapsing on the date of discharge. (Sherilyn Moore, August 22nd 2023). The risk accruing due to enforced abstinence during the treatment may lead to overdose once the client is out of the treatment facility. This has led to scenario where people leaving the treatment centers go back to consuming even bigger amounts of the substance.

A significant number do agree to attend rehabs willingly. In the United States, a study by Clark (Clark, 2017) examined the link between self-enrollment in rehabilitation centers and relapse. The study shows that the best individual efforts to break free of addiction, even when coupled with professional help may not bear fruit.

The fact that a substance abuser seeks treatment voluntarily is not always a guarantee that there will be no incidences of relapse. But other studies have reached different conclusions. Readiness to change among the clients who are voluntarily admitted to treatment centers is important for successful outcomes. Lack of motivation as pointed out by the Self Determination Theory may impact outcomes. According to the Trans-theoretical Stages of Change model, the client undergoes three stages in the process of seeking treatment. In the pre-contemplation stage he or she is not ready while at the contemplation stage the client is getting ready to seek treatment leading to the third stage where he or she takes action by embarking on treatment. (Corey G. 2005).

But others argue that treatment need not be voluntary and that sanctions such as withdrawal of services or threat of incarceration may motivate a client to accept treatment. In the USA criminal justice system referrals constitute a big percentage, 40-50% of those who attend government funded drug treatment programs. Some oppose coerced treatment on philosophical or constitutional grounds. They say treatment can only be of benefit if a person is fully motivated. Some researchers have argued that little benefit accrues when a drug user is forced into treatment. (Hartjen, Mitchell & Washburne 1981) This is a form of legal coercion. Thus, it is a waste of money to treat people who are unlikely to change. This school of thought says that an addict must hit rock bottom before he or she can benefit from the treatment. Others argue that few chronic substance abusers will seek treatment without some form of external motivation and that some form of legal coercion is as justifiable as any other means such as promises of a job after treatment.

In Canada one study covering the years 2005 to 2015 found that 399 drug users were forced into treatment in Vancouver (12.5% of the total studied). The study found no statistically significant reduction in drug use for voluntary clients, coerced clients

and those not attending any form of treatment, negating the whole idea of addiction treatment as a farce. (Andreas Pilarinos et al 2018)

Similar findings have been recorded in a study in the Pakistani City of Quetta. (Unnisa, et.al 2019). The study shows that to break free from substance use much more than individual and community support is needed. Pakistan is a Muslim country but here even the strict laws of religion have not been able to eradicate the scourge of substance abuse. The Pakistani study called for enough personnel and treatment options. Some of these options include enhanced after care, joining self-help groups of recovering substance abusers and the use of medication. In this regard, voluntary pursuit of rehabilitation often failed dismally. Further afield in the Asian continent, Zeng found out that relapse was rampant among voluntary drug and substance rehabilitees in China. (Zeng et.al, 2021) This was mostly explained by lack of family support. The former studies underline the fact that relapses are a serious phenomenon even for voluntary clients.

Coerced pursuit of rehabilitation has also been the focus of various studies. Coercion can be authored by both the government and the families of the affected client. Still in China, families have been reported sending their children and relatives for rehabilitation (Hong et.al, 2022). Family involvement pushed addicts to attend rehabilitation and also played key roles in behavioral change. In patriarchal societies where fathers wield a lot of power, their word is law, and they can force affected family members to seek treatment. Refusal can lead to expulsion from the homestead and denial of food and other services provided by the family unit. But this did not have sustained success. Upon withdrawal of family reinforcement, relapse rates tended to increase. It is thus becoming increasingly clear the issue of relapse is a complex one

where coercion or the lack of it are just some of the factors that need to be studied further. The study sought to examine the level to which these findings apply to African countries such as Kenya which is the focus of this study. Many traditional family set ups in Kenya have been undermined by modernity and the role of the family has shifted rapidly. The father is no longer the authority figure he was in the past and the new phenomenon of single motherhood has come to complicate the matter further.

Government and public employers have also been active in enforcing attendance to rehabilitation centers. A study by Sanni in North Central Nigeria shows that relapse often sets in after government enforced rehabilitation. (Sanni, 2021) In this regard, attendance to National Drug Law Enforcement Agency (NDLEA) rehabilitation centers often failed as some attendees relapsed. Government enforced treatment tends to use the power of the court to coerce people into substance abuse treatment. These programs are underfunded and manned by few trained therapists and in many instances, they tend to be punitive with severely affected patients being chained to walls and stakes. This signaled that there was need to strengthen the program through policy and pragmatic interventions. Lack of funding and competent personnel do not make this a very ideal area to study the effects of coercion on relapse rates following treatment. The former study fell short of examining the reasons for relapse. It was also undertaken in another part of Africa which limits the generalization of the findings to the Kenyan context. Nigeria however resembles Kenya in one significant way. There are sizable populations of Christians and Muslims and both communities have been affected differently by substance abuse. While Christians tend to primarily abuse alcohol, Muslims abuse other substances such as heroin and hashish. In Nigeria today, in the Muslim North, the biggest challenge is the abuse of the common medicine used to treat

the common cold which contains codeine, a medication that is legally available over the counter.

In Rwanda, coercion from family members has been common. A study by Kabisa and others (Kabisa et.al 2021) focused on Icyizere Psycho-therapeutic Centre in the country and shows that although families pushed persons to rehabilitation, relapse remained high at 59.9%. This was due to influences from family members and peers. This shows the complexity of relapse. Families were active agents towards making members attend rehabilitation, but they were also sources of negative influence for clients, pushing some to relapse. As in China the head of the family can ensure the affected family member seeks treatment by threatening to expel such a member from the homestead. However, certain traditional practices within the family tended to work against full recovery. Taking of traditional liquor in many social functions such as rites of passage, dowry negotiations, marriage and funerals tended to work against the full recovery of the substance abuser. Ostracizing and denying food to such a member will make him or her agree to seek treatment. The study by Kabisa and others is pivotal for this current study since it was focused on an East African country. However, country specific dynamics could limit the application of the findings to the Kenyan situation hence the need for studies such as this current one. Rwanda is a country of two major ethnic communities, the Hutu and Tutsi and is a Christian country with the majority being Catholic. Kenya is mostly a Christian country, but the Christians are divided into thousands of denominations and sects, while there is a significant minority who profess the Muslim faith. Different faiths view the issue of substance abuse, treatment, and relapse differently.

In Kenya, there are limited studies on the effect of voluntary and enforced attendance to rehabilitation and how this affects relapse rates. The study by Mwove

(Mwove, 2019) focused on “Relapse among patients diagnosed with substance related disorders at Mathari National Teaching and Referral Hospital, Kenya.” The study underlines the fact that relapses were prevalent among patients irrespective of whether they had voluntarily attended rehabilitation or had been forced to do so. The study at Mathari National Teaching and Referral hospital is significant. Substance abuse and many mental disorders such as psychosis and bipolar have been found to occur together in what therapist call dual diagnosis. The study focused on a national referral hospital which means that some of the subject could be drawn from Gilgil Sub-County which is the focus of this current study. The local government hospital in Gilgil Sub County also operates a psychiatrist wing which is a branch of Mathari National Teaching and Referral Hospital.

In the Limuru Sub-County of Kenya, which is part of Kiambu County which neighbours Nakuru County, Kinyua (Kinyua 2019) found that family support played crucial roles in militating against chances of relapsing. Families ensured that the loved one on leaving the rehab, received adequate after care. They enrolled them for educational courses, sought out local self-help groups for recovering substance abusers such as Alcoholic Anonymous, and Narcotic Anonymous, and sent others to work and study in the Gulf where access to alcohol was limited. The study stressed the need to strengthen family support in rehabilitation processes. Religion also played a significant role. Kiambu County, however, is a relatively wealthy county where there are many rehabs, and many families can afford the best care for their loved ones abusing substances. The study however did not focus on the direct link between family enforced rehabilitation and relapse. The fact that the focus of the study was Limuru Sub-County in Kiambu County makes it important to this current study which focuses on the neighboring county of Nakuru.

Regrettably, the family role in coercing addicts to attempt rehabilitation can have negative effects on the outcomes of such rehabilitation. A study by Githae, and others (Githae et.al, 2016) focused on family systems effect on recovery. The study shows that emotional over-involvement (EOI) had significant relationship with relapse among alcoholics ($p=0.000$). In this regard, the study showed that over pressurization by parents made the clients feel that they were not in control of their lives. Recovering patients could fail to take responsibility of treatment and relapse once parental support was withdrawn. Sometimes clients are treated as incompetent people and are not allowed to handle finances. Many are left out of family decisions even those affecting them personally. They are not treated with trust and all their movements are monitored. Many feel irked at these restrictions, and having their lives micromanaged, and this sense of frustration has led to many relapses.

A study in Mombasa County of Kenya (Kuyeya, 2021) shows a relapse rate of 38.89% for those undergoing rehabilitation processes with or without government enforcement measures. The study made it clear that push for “adherence to recommended treatment protocols as well as uniformity” often failed. Governments were thus called upon to support follow up processes to check relapse as hypothesized by this current study. Government efforts to get rid of substance abuse usually end with getting the substance abusers into the treatment centers. Follow up is inadequate and many government enforced and sponsored clients are soon back into active abuse of their old drugs of choice. Mombasa is a coastal city with a big Muslim population, and here the dynamics of the Muslim faith plays a big role in the management of substance abuse. The city is also an international entry port, and many illegal substances pass through it.

From the foregoing discourse, voluntary and coerced attendance to rehabilitation did not always result to sustained cessation of drug and substance abuse. This means that studies on the roles played by coercion as well as voluntary treatment in mitigating relapse are timely. Furthermore, there is absence of studies on this role focused on Nakuru County and Gilgil Sub-County in particular. This opens contextual and empirical gaps that need to be bridged through systematic study. In this regard, this study sets out to examine the effect of voluntary and involuntary attendance to rehabilitation centers on relapse in Gilgil Sub-County.

1.3 Statement of the Problem

Families and concerned people who take their loved ones to rehabilitation centers for SUD treatment expect that the centers should register high levels of success. This emanates from the fact that rehabilitation efforts have immense resource implications on governments and families involved. The average cost of a three-month treatment program is two hundred thousand Kenya Shillings (200,000/=) a huge figure for many Kenyan families. In the more elitist rehabs this figure can approach one million Kenyan Shillings (1,000,000/=). After spending such huge sums families, institutions and the government naturally expect the client to maintain sobriety. However, this is not the case in Kenya and Gilgil Sub-county of Nakuru County in particular. Studies in Kenya have shown high levels of relapse. In Mombasa County a study (Kuyeya, 2021) reported a relapse rate of 38.89%. This took place despite of the immense support and enforcement of treatment interventions done by government institutions. Mombasa has had an active drug rehabilitation program targeting heroin addicts and this has been studied in depth in the past where retention and relapse rates have been documented. Though the rate of relapse in Gilgil Sub-County has escaped

the attention of scholars, there is no evidence that the situation is materially different from that prevailing elsewhere in Kenya.

Studies in Nakuru show high levels of substance use with 90% of deputy principals in a study reporting substance use among female students in secondary schools. (Okita, 2020) Deputy Principals in secondary schools in Kenya are usually in charge of discipline and it is the office that handles substance abuse cases in school. In the study by Okita, 94% of the respondents show that strict parental control was very effective in curbing the abuse of substances. Nevertheless, the study does not focus on rehabilitation centers and relapse rates and may not show the role parents played in curbing relapse and vice versa. Many parents are also not well versed with new psycho active substances that are now being abused. Their knowledge is restricted to the traditionally abused substances such as cannabis, alcohol, khat and tobacco, whose use is easy to detect through smell and behavior and speech of the user.

In the absence of documented relevant literature, it remains a daunting task understanding how being coerced or voluntarily attending rehabilitation affects relapse rates. This ought not to be so in a county with a high level of alcoholism due to the high numbers of factories producing second generation alcohol, a term used to refer to cheap spirit based alcoholic beverages that many of the drinkers opt for due to low cost and high potency, (National Authority for Alcohol and Drug Control Agency (NACADA, 2021). In the 1990s, with the rise in the price of alcoholic beverages manufactured by mainstream brewers such as Kenya Breweries, enterprising investors put up factories in Nakuru producing alcohol which Kenyans with limited resources could afford. The cost of these drinks was as low as ten shillings per mug, leading to them getting the Swahili name "*Kumi Kumi*". The county also led the way by opening the largest rehabilitation center in Africa whose model was soon copied by others who set up

rehab in the county. But despite high hopes in the initial stages, most of those who attended soon relapsed. Many of the clients currently in rehabilitation centers are there due to incessant relapses. Studies have been done on factors leading to relapse, but no attempts have been made to study whether voluntary or involuntary attendance to rehab affects relapse rates.

1.4 Purpose of the Study

The purpose of the study was to find out the effect of voluntary and involuntary attendance to rehabilitation centers on relapse in Gilgil Sub-County. Involuntary attendance involved coercion by families or enforcement by the government to compel substance abusers to attend inpatient treatment for substance abuse.

1.5 Objectives of the study

The study was guided by the following specific objectives.

1. To examine the effect of voluntary treatment in rehabilitation centers on relapse in Gilgil Sub-county of Nakuru County.
2. To assess the effects of family enforced treatment in rehabilitation centers on relapse in Gilgil Sub-County of Nakuru County.
3. Assess the effect of legal, government and employer enforced treatment on relapse in rehabilitation centers in Gilgil Sub-County of Nakuru County.

1.6 Research questions.

1. What is the effect of voluntary treatment in rehabilitation centers on relapse in Gilgil Sub-County of Nakuru County?
2. What is the effect of family enforced treatment in rehabilitation centers on relapse in Gilgil Sub-County, Nakuru County?

3. What are the effects of official government and employer enforced addiction treatment in rehabilitation centers in Gilgil Sub-County, Nakuru County, on relapse rates?

1.7 Significance of the Study

Relapse negates all the efforts made at treating victims of Substance abuse disorder and has serious social and economic ramifications. Understanding the factors that lead to this unwelcome result of expensive addiction treatments is of significance to society, the families of the clients, the government and mental health practitioners. Various strategies have been used to control or eradicate the scourge of substance abuse. There are laws in place to prevent drug use and try to regulate the use of substances and these involve penalties such as jail time and fines for those who infringe them, forfeiture of proceeds of drug trade and in extreme cases in certain countries such as Thailand, capital punishment. Apart from punitive measures outlined above, efforts to reduce addiction also involve treatment. A lot of resources and efforts have been spent trying to cure patients with substance abuse disorder, but relapse continues to be the reality and treated drug users go back to drug use soon after completing expensive drug rehabilitation programs. This study sought to point out some of the reasons why these relapses are occurring, and in that way help in reducing the rates at which treated substance abusers are reverting back to problematic drug use after treatment.

Successful prevention of relapse will directly benefit families of clients with substance abuse disorder as they will become productive members of society. Rehabilitation is expensive and multiple relapses have great monetary implications, costing families and society a lot of money. It is difficult to quantify the loss in productivity caused by drug abuse, but it is estimated to run into billions. Addiction

does not discriminate, affecting all classes of people, and once affected there are no longer productive. Teachers, policemen, farmers, bankers, and laborers become victims. The Government spends a lot of money and time incarcerating and chasing substance use disorder victims. Many of Kenyan prisons are full of inmates whose crime was the use of illegal substances such as cannabis. With successful rehabilitation this will be money saved by the government. The study will also show therapists and drug rehabilitation staff the category of the clients who are most likely to relapse following treatment if it can show that voluntary treat or coercion have an effect on successful outcomes. Admission to treatment centers will begin considering the patient's opinion on the issue. When dealing with unwilling clients, it would be useful to make attempts to have them accept treatment willingly instead of using coercion. The study will be significant to families living with an addicted family member. It has been the practice of some families to force such members into treatment with disappointing results as they relapse soon after leaving the facilities. Coerced clients have been known to harbor bitterness against those who compelled them to get into treatment and once out of the center, they go back to abuse as a form of revenge. The authorities and stakeholders involved in addiction treatment will be sensitized to the need for designing policies and programs that will address the issue of coercion which could be negating efforts being made to provide addiction treatment in the county and beyond. The benefits of the study will be that agencies involved in drug abuse treatment will be able to implement the strategies used in dealing with relapse. Law enforcement agencies, school administrators and family members will all benefit from the study. Rehabilitation centers will be able to come up with strategies that make the client's role primary to the success of the treatment.

1.8 Scope of the Study

The study had as a subject people who have undergone addiction treatment in rehabilitation centers in Gilgil Sub-County and its environs. These took place within the last five years preceding the commencement of the study. The study subjects will be male adults aged up to sixty years and have been out of rehab for at least three months. They could either be still in recovery, gone back to problematic use or have been readmitted into rehab. As will become clear a significant proportion of those currently in rehabs at any time are there for the second, third or fourth times due to relapse. In one extreme case, one of the clients was on his fifteenth stint in a rehab due to consistently relapsing.

The geographical area was chosen due to various reasons. Gilgil Sub-county is one of the constituents of Nakuru County. This is the area that pioneered the brewing of second generation alcoholic beverages which are cheap and potent and have been blamed for increasing cases of alcohol abuse country wide. The sub county is also home to various military establishments, and other uniformed formations whose members are to a big extent users of alcohol. There is also a big migrant labour force working in the various estates and ranches who have disposable income to use on purchasing substances. The area is also traversed by an international Highway, the A104 which links it with the Coast and the Great Lakes Region of East and Central Africa, alongside which all manners of illegal substances pass. Gilgil also pioneered the modern rehabilitation center such as JOMEC, Taraji House, Teens Challenge, Gappra and The Presbyterian Care Center, a trend which has now been copied nationwide.

1.9 Delimitation of the Study

The study focused on a limited number of male respondents due to constraints of time and resources. The research only studied variables that are related to the issue

of relapse after addiction treatment as they relate to the concept of consensual participation by patients in treatment. Respondents were those who had undergone treatment in residential rehabilitation centers and who had stayed for at least three months since completion of the program. They were also supposed to have gone through the NACADA recommended ninety days stay at the rehab. The study looked at male subjects and did not study female subjects who had undergone substance abuse treatment in the sub county. The study also looked at other factors that became evident in the course of the research such as dual diagnosis and its impact on the outcome of the treatment, for both voluntary and coerced clients.

1.10 Limitations of the Study

The researcher expected the likelihood of some of the respondents giving false answers. There is stigma which society still attaches to the issue of substance abuse where the client is viewed as being morally deficient. This point of view has been propagated by the moral views of addiction which tend to blame substance abusers for their predicament. Others were inclined to give socially acceptable responses to questions about addiction recovery and relapse. They were embarrassed to admit that they have let themselves and their families down. The researcher also expected the management to be reluctant to give details on former clients who had relapsed fearing that such data would reflect badly on their institution's performance. This is especially so where the rate of relapse approached ninety percent and where it was difficult to identify any former client who was still in the recovery journey. Another limitation was the restricted access to the military garrisons within Gilgil to ascertain the number of soldiers who had received substance abuse disorder treatment in local rehabilitation centers. Senior government officers were also reluctant to divulge information regarding such treatment as they feared the stigma attached to the subject by society.

The researcher mitigated this by assuring potential respondents of complete confidentiality, but the military was not forthcoming with information while senior civil servants invoked the official government secret act.

1.11 Assumptions of the Study

This study was based on the assumption that the targeted respondents would be willing to participate in the study. The researcher further assumed that in line with the study hypothesis, voluntary treatment, family enforced treatment and government-employer enforced treatment affect relapse among persons who have undergone treatment in rehabilitation centers in Gilgil Sub-County. The study also assumed that no major changes would have taken place during the study period to significantly affect the outcomes of the study.

1.12 Theoretical Framework

This is the structure describing the theories that guided the research process. The researcher used the Self Determination Theory.

1.12.1 Self Determination Theory

The proponents of the Self Determination Theory (SDT) are Professor Edward Deci and Professor Richard Ryan. They call it the theory of self-motivation. (Deci. E 1996). It states that human personality and motivation are greatly influenced by the inborn tendency for humans to strive for personal growth and that this is facilitated by the need to feel competent and autonomous. It is an empirically derived theory of human motivation and personality in social contexts that differentiates motivation in terms of being autonomous and controlled. It is concerned with the motivation behind people's choices without external influences. There are three key psychological needs that are both innate and universal in human beings. These are the need for feeling of

competence, the need to be connected with others and the need for autonomy. These three needs are ignored where victims of addiction are coerced or pressurized to go into addiction treatment. The concept of inborn motivation brings about the doing of things not because of rewards or fear of punishment but because the inherent rewards of the behavior itself is the focus of the theory. The theory goes counter to theories that hold that the best way to get human beings to perform is to reinforce their behavior with rewards and deterrents (Sheldon, Williams, & Joiner, 2003). Motivation is pushed by five interrelated factors which are, basic needs, organismic integration (bodily well-being), cognition, and causality.

Perceptions of coercion and threats to autonomy have implications for motivations and behavior change. Motivations for abstinence are critical for people recovering from substance use disorder. Low motivation predicts poor treatment engagement and outcomes (Marlatt & Witkiewitz, 2005). The Self Determination Theory considers autonomy as the central concept linking the degree which behaviors are integrated and internally valued for their effectiveness and psychological well-being. The theory provides a set of hypotheses concerning the role of autonomy in the procedure of treatment assisted recovery. It highlights the fact that not only external circumstances are to be given priority when addressing coercion, but the patient's sense of autonomy needs to be put in the fore if there is to be successful outcomes following treatment.

Autonomy and the need to feel in charge of their destiny makes mankind have a stake in the outcome of their ventures. When they feel that this is infringed upon clients in treatment may feel that they don't own the program and thus the importance of this theory to the study.

Self-determination can help change thinking habits and build self confidence in the addict's recovery (Bach, 2017). Emotions control addicts during treatment. The

body has to be freed from negative influences such as coercion and pressure. Clients who were taken into treatment against their will, some even in handcuffs may feel that their autonomy and self-worth have been infringed upon and they may not feel that the program is for their own good. By going back to their drug of choice following treatment, they feel that they are asserting their autonomy. But when the decision to seek treatment came from the clients, they will feel they own the program and subsequently strive to make it work.

1.13 Conceptual Framework

The conceptual framework is illustrated in the attached diagram below. The theory conceptualizes that voluntary treatment attendance, family enforced treatment, and government-employer enforced treatment (the predictors) affect relapse in rehabilitation centers (the dependent variable). This study aimed at investigating the relationship between these variables. The acceptance or reluctance to accept treatment are factors that are shown to influence the success of the treatment and the rates of relapse. Mental health, education and employment status are the moderating variables.

Independent Variables

Voluntary Treatment Attendance



Dependent Variable

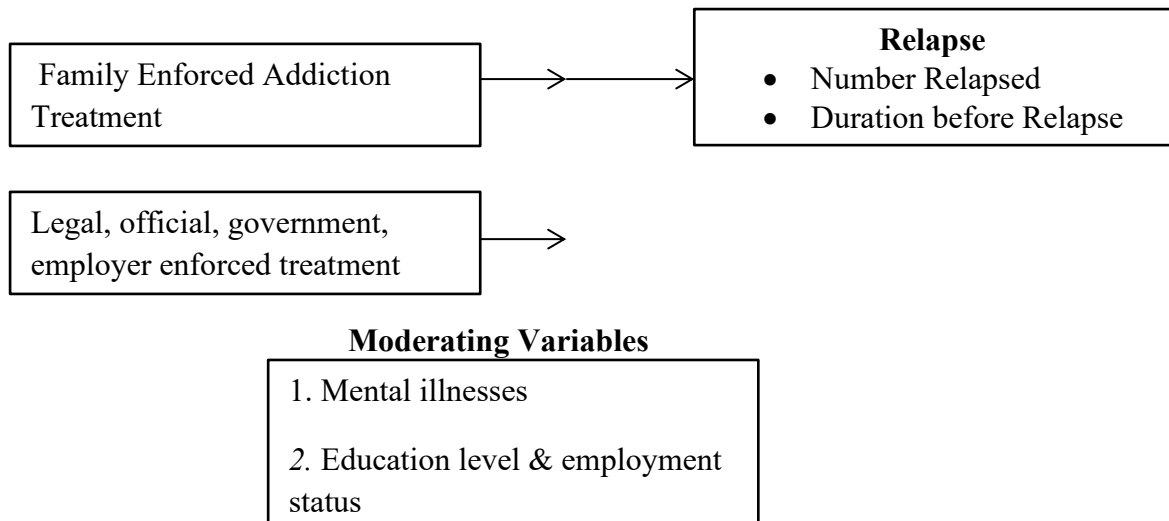


Figure 1: Conceptual Framework for the Effect of Voluntary and Involuntary Attendance to Rehabilitation Centers on Relapse.

Voluntary admission is where the client requests to be admitted for substance abuse disorder treatment in a residential rehabilitation center. This can be on the advice of a doctor, therapist or family members and loved ones. This can be done by any adult of sound mind and it means that the client enters treatment without any pressure. The client has also been given information about their assessment, admission and proposed treatment and have had any questions they had answered. The client must understand what they are agreeing to and they are free to withdraw from the treatment process at any time. The client signs documents that indicate that they have given informed consent. (Mental health Act 1989, Mental Health Act 2020)

In cases where clients cannot give informed consent due to a co-occurring mental disorder, they will have to be admitted as involuntary patients. This is the coexistence of both a mental illness and a substance use disorder. People with mental illness are more likely to abuse substances. Such mental conditions as schizophrenia, and drug induced psychosis can make the patients behavior erratic and incapable of realizing the need for treatment. Involuntary admission can be done to prevent the client harming self and others, and in the situation where his or her condition can only become

worse without treatment. (Mental Health Act 2020) This type of admission can also be done to clients without co-occurring mental illnesses but who are reluctant to get treated for substance abuse disorder.

Proponents of involuntary treatment maintain that treatment does not need to be voluntary to be effective. Sanctions from the legal authorities such as the judiciary, or enticements from the family, employers and friends can significantly increase numbers of clients seeking treatment and help improve adherence to the treatment. (N.I.D.A, 2012). Mandated treatment is court ordered and a controversial method of taking people for treatment. (C. Scott., 2nd May 2012) Mandated treatment is sometimes given instead of jail time, but even here informed consent is a right and the client can choose prison instead. People who have committed crimes while under the influence of substances can be given mandated treatment. In cases of child neglect and custody, domestic violence due to substance abuse, and mental health conditions, legal coercion can be used. (Yagur, B., 29th May 2018) Voluntary treatment is expected to tap into the benefits of the client's motivation as the client wants to be there. Involuntary attendance is seen as a form of legal coercion from external motivation, while voluntary clients are expected to be more motivated. (Deci, E. 1995). The big dilemma is that many of those who need treatment most often don't want it.

Another class of involuntary class of clients are those who are compelled to seek treatment due to fear of losing benefits. In this category we can include people in formal employment in both the public and private sectors. Where substance abuse leads to a drop in productivity, absenteeism, and indiscipline such workers may be given ultimatum to seek treatment for their disorder or risk losing chances of promotion, or even their jobs.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents empirical review of literature. It also presents the associated research gaps. This was done in line with the research variables which were voluntary treatment attendance, family enforced treatment, and government-employer enforced treatment (the predictors) and how they relate to relapse (the dependent variable).

2.2 Empirical Literature Review

This section presents empirical review of relevant literature. This was guided by the research objectives.

2.2.1 Voluntary Treatment and Relapse

Numerous studies have been undertaken on the nexus between voluntary addiction treatment and relapse tendencies. A study by Clark, (Clark, 2017) titled “The recovery revolution: the battle over addiction treatment in the United States” looked at how self-enrollment in rehabilitation centers can affect relapse. The findings show that it is a daunting task to break loose from habit. In this case, addicts find it hard to break from the habit even with professional help. These findings are crucial for this current study that sets out to find out if voluntary attendance to rehabilitation centers has a bearing on relapse rates. This has led to many researchers concluding that addiction could be a disease of the mind where the patient has no control on his or her taking of substances. Many of the affected testify that they genuinely want to stop abusing the substances but invariably find themselves going back to active use following periods of

abstinence. The former study was however carried out in another continent and may not expressly relate to Kenya which is the focus of this study.

(Unnisa, Gul, & Naz 2019) carried “an analysis on the role of rehabilitation centers and its effects on the reduction of drug addiction in Quetta City, Pakistan.” The study was qualitative in nature with data being collected using interviews and Focus Group Discussions (F.G.D s). The study established that rehabilitation remained a tall order even when the clients were supported by the community. This was due to lack of enough personnel and treatment option. Submitting oneself for rehabilitation thus did not always yield the desired outcomes due to rates of relapse. This current study sets out to examine the veracity of these findings in the Kenyan context which is particularly important since country specific dynamics could limit the level to which the findings from the former study could be applied to this current study.

Zeng carried out a study on “the relationship between family intimacy and relapse tendency among people who use drugs: a moderated mediation model.” (Zeng et.al, 2021) Data was collected from 817 males using “the Family Intimacy and Adaptability Scale, General Self-Efficacy Scale, Positive Psychological Capital Questionnaire and Relapse Tendency Questionnaire.” Moderated regression analysis was carried out using the Hayes’s process macro. The findings show that relapse was rampant among voluntary drug and substance clients in recovery. Some of the reasons for that was lack of family support. There was need for family intimacy as this could lead to reduction in relapse tendency of people. The idea was that where there are close family ties and intimacy, and the client feels loved chances of relapse are limited. This current study sets out to examine the veracity of these findings in Kenya which was not the focus of that particular study. The traditional African family used to be very tight and all took care of each other.

Mwove (Mwove, 2019) carried out a study titled “Bio-psycho-social determinants of relapse among patients diagnosed with substance related disorders at Mathari National Teaching and Referral Hospital, Kenya.” The study used the descriptive cross-sectional study design. Data was collected from caregivers and guardians of patients undergoing treatment after relapse to substance use sampled using multistage sampling. Inferential and correlation analysis were carried out. The findings show that relapse was prevalent among patients irrespective of whether they had voluntarily attended rehabilitation or were coerced into doing so. The former study is important to this current study since it was carried out in Kenya as is the case with this current study. Clients from Mathari Hospital are however not the typical clientele found in the normal rehabilitation centers as this institution deals with serious mental disorders such as psychosis, many of which are beyond the scope of many rehabs, and which require expert psychiatric care. However, the study was not overtly focused on Gilgil Sub County and may not expressly relate to this current study, but in the process of field work the researcher found out that the local sub county hospital in Gilgil has a psychiatric wing which is branch of Mathari hospital.

2.2 Enforced Treatment and Relapse

Family enforced treatment has also been the focus of various studies. Use of coercion sometimes can be attributed to the desperation among families who despair of ever getting the affected member to agree to seek treatment. A study by Hong et al. (Hong et.al, 2022) focused on ways to enhance the motivation for drug detoxification within the context of family guidance. Purposive sampling was used to sample 15 participants undergoing drug rehabilitation in Shanghai, China. The study shows that motivation from family members was important to attending rehabilitation and enhancing behavioural change among addicts. Regrettably, withdrawal of the

reinforcement from parents and guardians often led to relapse. The former study was focused on an Asian country and may not directly relate to Kenya or other African countries for matter hence the need for studies such as this current one.

In some countries centers for involuntary treatment of substance abuse, clients are subject to abuse, including beatings and forced labour. The physical violence is sometimes viewed as part of the treatment program. Several national governments in East and Southeast Asia operate rehabilitation centers where people abusing drugs can be sent without their consent and where abuse is rife. (Alexander R.B, June 2018). Closer home, the British Broadcasting Corporation did an article on torture in a Somali rehab clinic in Kenya. (BBC News, 29th July 2019). Hundreds of youths were being held captive in rehab centers. (Michael M. Phillips, Wall Street Journal, 16th August 2022). The Kenyan authorities shut down one of those torture rehabs. (Expose: Kenyan authorities shut down torture rehab in Nairobi. 1st August 2018).

In this particular incident, Somalis resident in the USA, some of them American citizens, who had teenage sons addicted to drugs would ship these young men to rehabs ran by local Kenyan Somalis. It was here that torture was used as part of the recovery process, and which was exposed by a BBC World News investigation. Such practices would not be admissible in the USA, but in Kenya the rehab management could operate blatantly ignoring the law as supervision of rehabs in Kenya is very perfunctory. How effective such tactics are in ensuring recovery have not been documented.

Kabisa et.al carried out a study on “Determinants and prevalence of relapse among patients with substance use disorders with reference to icyizere Psychotherapeutic Centre in Rwanda.” (Kabisa et.al 2021)The study was motivated by incessant relapse to substance use after rehabilitation. Through a cross-sectional survey 391 patients who had substance use disorders were sampled. The findings show that

although families pushed persons to rehabilitation, relapse also occurred due to influences from family members and peers. Some family members who could take alcohol in controlled measures continued to indulge proving to be a trigger to the recovering family members. Certain family functions which called for the use of traditional brews also acted as a temptation to those who were in recovery. (African Journal of Drug and Alcohol Studies 2018) Relapse was at 59.9%. These findings show that families played dual roles in rehabilitation of substance users. They were active as agitators for rehabilitation as well as sources for negative influence that could lead to relapse. Failure by families to fully trust the members who were in recovery also discouraged such clients. Earning the trust of the family is mentioned by many recovering clients as their biggest challenge. The former study was focused on another East African country which could limit the generalization of the findings to the Kenyan case. This begs for studies such as this current one.

In the study “The relationship between family support, self-efficacy and relapse occurrence among youths recovering from drug addiction in selected rehabilitation centres of Limuru Sub-County.”(Kinyua, 2019) Questionnaires were used to collect data on the study constructs. The findings show that most of those recovering from drug addiction were males. Further, family support played crucial roles in militating against chances of relapsing. To this end, it was important to strengthen family support in rehabilitation processes. The former study is important to this current study since it took place in a county that neighbours Nakuru County. However, the study assumed that the client went for treatment willingly and with the support of the family and the study was not concerned with the direct link between family enforced treatment and relapse. The findings can thus be only sparsely applied to this current study. The researcher also did

not look at the issue of clients who are coerced into treatment through official government orders or through ultimatum by employers to their employees.

Githae, et.al carried out a study on “Family Emotional Over-Involvement and Relapse among Inpatient Alcoholics in Nairobi, Kenya.” (Githae et.al 2016). The study investigated the effect of family systems on recovery. Data was collected from a sample of 186 drawn in rehabilitation centers in addition to their family members. The “Alcohol Use Disorders Identification Test (AUDIT)” as well as questionnaires was used. The findings show that emotional over-involvement (EOI) had significant relationship with relapse among alcoholics ($p=0.000$). It is thus evident that parents over pressurized patients some of whom felt that they were no longer in control of their lives. This validates Edward Deci’s SDT theory where the need to have autonomy is central to human motivation. Many families treated those in recovery as being incompetent and restricted their movements and access to money. This limited personal accountability and pushed the patients to relapse. The former study was carried out in Kenya and could cast light on this current study. This current study sets out to test the veracity of the findings in the context of Gilgil Sub County.

Coercion also involved government actors such as the judiciary and the police, while there were those who went for treatment due to sanctions from employers. Liu, et.al carried out a study titled “Tracking study on the relapse and aftercare effect of drug patients released from a compulsory isolated detoxification center.” (Liu et.al 2022). The study was motivated by the lack of accurate statistical data on relapse rates to drug users after mandatory detoxification in China. Experimental and control groups comprised of 153 and 357 persons respectively were used to examine relapse in the study group. The findings showed a relapse rate of 47.6% after mandatory

detoxification. The reason for this was due to limited aftercare by professional social worker services. Since the study was carried in China, its findings can only be used sparingly in Kenya hence the need for studies such as this current one.

Sugiur in “An end to coercion: rights and decision-making in mental health care” used desk review of extant literature to examine the effect of coercion on rehabilitation processes.(Sugiur et.al 2012) The findings show that forcing people to undertake treatment was tantamount to violating their fundamental human rights. In the USA, forced detoxification by courts or civil institutions made people unwilling to make their own decisions on whether to seek treatment. In case of relapse, such people were reluctant to seek help willingly. The former study however does not attempt to link relapse with coercion which leaves room for studies such as this current one.

Sanni et al. carried out a study titled, “Prevalence of Drug Relapse among Clients in Rehabilitation Centres in North Central Nigeria: Implications for School Counselors.”(Sanni et.al 2021) The study took place in the context of high relapse to drug use after rehabilitation. The study focused on “the prevalence of drug relapse among clients in NDLEA rehabilitation centres in North Central, Nigeria.” Based on the descriptive survey design questionnaires were used in data collection. The findings show that there was moderate relapse to drug use in the study population. The fact that relapses occurred was a pointer to the need to put in place measures aimed at strengthening the program. The former study however did not attempt to examine the reasons motivating relapse hence need for studies. It was also undertaken in another part of Africa which limits the applicability of the findings to the Kenyan context.

Kuyeya studied “effectiveness of treatment and rehabilitation programs for drug and substance dependence in Mombasa County, Kenya.” (Kuyeya, 2021)With the promulgation of the constitution of Kenya 2010, licensing and drug control became a

devolved function. NACADA did a study in the coast region including in the port city of Mombasa which found out that 51% of the adult residents had used at least one substance of abuse. The county government was advised by NACADA to set up rehabilitation centers among other measures, especially for abusers of heroin and other narcotic substances. Results have been mixed. (NACADA, 2016) Based on the cross-sectional survey design, data was collected in selected rehabilitation centers from a sample of 97 drug and substance users aged between 18 and 65 years. The study shows a relapse rate of 38.89% for those undergoing rehabilitation processes with or without government enforcement measures aimed at “strengthening adherence to recommend treatment protocols and uniformity.” This underlines the need to mobilize government support in follow up processes to rein in on relapse as envisaged by this current study. (Kuyeya 2021)

Many government workers have also been reported as suffering from substance abuse disorder. These include civil servants, teachers, national and county officers, and members of the disciplined forces. Teachers are particularly affected by alcoholism with one study showing 59% in Nyeri County use alcohol with 32.7 % being problem drinkers. (Maingi, et.al October 2018).The number of government workers with substance abuse problems is estimated at 400,000. (Business Daily 9th December 2017). Other reports show one in four government workers has a substance abuse disorder that needs treatment. The disciplined forces have also been affected by the scourge. Their abuse of substances has been attributed to work related issues and prolonged exposure to high stress environments. The government has started a program of getting affected police officers into treatment programs. (The Star 26th June 2023) The government has a policy paper in place concerning the issue. (Workplace Policy, June 2014). The success of the policy has not been studied closely but the fact is that many of those who

end up in rehabs have not made the decision voluntarily. Fear of losing employment is a major motive.

For soldiers on active duty, the stresses of combat have also led to increased substance use. Many have been traumatized by the war in Somalia (Washington Post, April 30th, 2019), but for long many of them faced disciplinary measures instead of treatment. The situation is improving and soldiers with substance abuse disorders are now receiving treatment.

There are also those who are employed in the private sector who need substance abuse treatment. These include such occupations like bankers, accountants, managers of various ranks and drivers. When their affliction affects their performance, their employers may compel them to go for treatment. The law bars employers from sacking drug addicted workers but instead states they should invest in their treatment. (The Standard 6th August 2022). Such employees will however need to attend the prescribed treatment if they are to maintain their positions.

2.3 Summary and Research Gap

Conflicting results from different studies from all over the world makes it difficult to conclude as to the effects of coerced admittance into therapy. While there are those who maintain that coerced treatment for addiction works and these families should take tough stances to ensure treatment, others equally strongly believe that this will eventually work against success of the treatment. Involuntary interventions for substance disorders are said by some to be less effective and more harmful than voluntary, and involuntary centers often serve as places of abuse where clients receive beatings. Those who believe that there must be involuntary admission into addiction

treatment facilities defend their stand on several grounds. First is that few people who abuse substances will come out and admit they need help. Secondly, the effect of long-term substance abuse on the brain of the abuser are so profound that they make him or her incapable of making rational decisions including the decision to seek help. Thirdly substance abusers with other mental illnesses are not capable of deciding by themselves to seek treatment. Such mental illnesses as schizophrenia and bipolar are capable of rendering the patient incapable of making rational decisions. There is also the unfortunate misunderstanding of some of these cases of psychosis which are mistakenly attributed to substance use while the case could be that the mental disorder was causing the client to use substances as a form of self-medication. In Kenya there exists little knowledge on the numbers of addicts involved in treatment, the success rates of the programs and the relationship between success or lack of success and the issue of autonomy, free will and coercion and how these determine the outcome.

Supporters of voluntary admission say that coercion infringes on the basic human rights of the substance abuser as he or she is confined without his or her consent. These rights are enshrined in the constitution and the United Nations Organization (UNO) charter. The bitterness engendered by the involuntary confinement for three months may work against eventual success of the treatment and lead to relapse.

In Nakuru, the fourth most populous county in the country, and Gilgil sub-county in particular, the researcher came across no work that has been done on the relationship between mandated or coerced/involuntary addiction and voluntary treatment and whether the two modes of admission have a bearing on the success of the treatment. There is also lack of studies carried out to show whether taking addicts for drug rehabilitation through coercion influences relapse rates following treatment. The researcher came across no study that had been done to get the feelings and opinions of

those who undergo rehabilitation in the area concerning coercion and voluntary attendance to rehab. Rehabs continue to admit involuntary clients, but limited efforts are made to know how this move affects the client's eventual recovery. Knowing the right approach to take in the whole process of getting addicts into treatment to avoid subsequent failure in the form of relapse is an area that needs to be critically looked at.

A gap exists in the knowledge on how coercion and social controls as well as voluntary enrollment in rehabilitation centers affects success of treatment and relapse in Gilgil sub-county, Nakuru County in particular and Kenya in general. However, there is also a gap in the knowledge of the addicts' own perspectives on coercion before, during and after treatment and how this relates to their current status in the recovery process. There is little data on the experiences of people forced into treatment. It is not clear to what extent many of the commonly employed methods used in compelling people to seek treatment may affect success in the Kenyan setting. In rehabilitation centers, voluntary and involuntary clients are treated just the same, despite the different mindset of the two groups. A gap thus exists on the rehab experience of the two groups and whether enough is being done to address the mindset of those who joined the program unwillingly.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter presents the research methodology that was used in this study. It presents the research design, study site, target population, the sample and sampling techniques, data collection instruments, pre-testing, and data management procedures. It also presents data analysis and presentation.

3.2 Research Design

This refers to the plan or strategy that was used to carry out research. This study adopted the descriptive research design. This design is suitable in drawing relationships between study variables without the manipulation of the researcher (Kamau, Githii, & Njau, 2014). It was employed in this study to examine the relationship between voluntary, family enforced, and government-employer enforced treatment (the predictors) and relapse (the dependent variable).

3.3 Research Site

The study was carried out in Gilgil sub-county and its environs and was mostly done within rehabilitation centers and addiction support groups which were Alcoholic Anonymous groups which used to hold meetings in some of these rehabs. It will thus be able to look at both urban and rural aspects of the problem under study. The sub county is in the former Rift Valley province and its county headquarters are in Nakuru town, currently the fourth largest town in Kenya and which was elevated to the position of City by the national government in 2021. Gilgil town is also a major garrison town with several military and paramilitary camps. To serve these military personnel, there are very many bars selling all types of alcohol. A major international highway traverses

the sub-county where trucks and buses to Uganda, Rwanda, Sudan, and the Democratic Republic of Congo pass daily. The highway is a major conduit of illegal substances from both the Coast and the Great Lakes Region. It is also home to several rehabilitation centers both large and small, all of them private entities. It also hosts a major psychiatric hospital which the rehabs consult on all the psychiatric needs of their clients. Other major towns nearby are Naivasha, and Molo.

3.4 Target Population

Target population represents all cases of people who possess certain characteristics which are of interest to the study. It is the larger group from which a sample is taken (Mugenda & Mugenda, 2003). The target population was all the people who have undergone treatment for substance abuse and addiction within Gilgil Sub-County in between 2018 and 2022. The number was estimated as being six hundred and included only male clients leaving out female subjects. The numbers and the contacts for those in this population were obtained from rehabilitation centers and addicts self-help groups which maintain follow up and after care programs for their clients. Informants were selected based on having had undergone treatment and whether this was done under pressure or not and whether they had relapsed or not. One major consideration was that the client had to have undergone the recommended three months rehabilitation program and also had been out of the institution for a period of at least three months.

Many of the rehabs had after care programs and had started online groups for their alumni to keep in touch. Members dropping out of such groups was the first sign that such members could have relapsed. But whatever the outcome, the contacts provided enabled the researcher to reach out to the target population electronically and administer a questionnaire.

The study also approached people in alcohol support groups such as Alcoholic Anonymous who had also undergone addiction treatment. The target population was estimated at six hundred with the figure being arrived at using data from NACADA. Informants were randomly selected to give responses on their experiences in substance abuse, addiction treatment, recovery, or relapse. AA groups could not divulge personal information of the members, but individual members were at liberty to give responses about their own journey of recovery.

3.5 Study Sample

3.5.1 Study Sample Size

This study used the simple sample size calculation formula put forward by Yamane (1967). The formula is as follows:

$$n = \frac{N}{1 + N * (e)^2}$$

Where:

n=the sample size

N= the population size

e= sampling error (assumed at 0.1)

The applied formula to the target population of 600 was:

$$n = \frac{600}{1 + (600 * 0.1^2)} = 86$$

The sample size obtained was thus **86**.

3.5.2 Sampling Procedure

Simple random sampling technique was used to select a sample of 86 respondents from the target population of 600. This gave every member of the population an equal chance of getting into the study sample which was about fourteen

percent of addicts who had undergone addiction treatment in rehabilitation centers in Gilgil Sub-County, Nakuru County.

3.6 Data Collection

3.6.1 Data Collection Instruments

Data was collected using structured questionnaires and in-depth interview schedules. The questionnaires targeted substance abusers and had questions based on the research variables. Section one collected information on the independent variables of the study namely: voluntary treatment attendance, family enforced treatment, and government-employer enforced treatment (the predictors). A section on the dependent variable (number of days in sobriety) was also included. The questionnaire had closed-ended questions as well as Likert scale statements for each variable. On its part, the interview guide was also focused on the objectives of the research topic.

The data instruments were sent electronically to the identified subjects with responses also submitted by the same method. There were also face to face interviews, but these were few and only complemented data collected remotely via electronic means. The internet and mobile telephony, WhatsApp and other modern means of communication proved very effective while protecting the privacy of the respondents.

3.6.2 Pilot Testing of Research Instruments

The researcher designed questionnaires on issues to be studied. A pilot study in one randomly selected center within Naivasha Sub-County which neighbours Gilgil Sub-County and has similar demographics with many alcohol brewers and also straddles an international highway, was carried out. The researcher administered 9 questionnaires, with 2 questionnaires at the rehabilitation center. The researcher also conducted two interview schedules in the center. The responses gave the researcher an

opportunity to get acquainted with the addiction treatment experience of the respondents and the outcomes. These aided in pointing out weaknesses that the instruments had so that they could be corrected to ensure accurate results.

3.6.3 Instrument Reliability

The questionnaire's reliability was measured using the Cronbach alpha test. This is a scale test that measures the reliability of related items. Kimberlin and Winterstein (2008) posit that Cronbach's Alpha of 0.7 is an acceptable level of reliability. Items that did not attain the stipulated reliability were enhanced appropriately.

3.6.4 Instrument Validity

The accuracy, clarity, and suitability of the questionnaires were examined using data from the pilot study. Content validity was examined to ensure the instruments answered all the research questions in line with research objectives. In addition, the expert opinion by the supervisors and other university research experts was sought to improve the instruments.

3.6.5 Data Collection Procedure

The researcher visited the study area and administered the tools where possible. The researcher made use of information technology and the media making use of such instruments as the internet, telephoning, Email, Skype and Zoom to contact and interview respondents. This took place within a period of three weeks.

Limitations to data collection included time limitations, shortage of funds and transport challenges in visiting rural based rehabilitation centers. Respondents were approached anonymously through the use of Information Technology (I.T, where the responses

were on unmarked and anonymous questionnaires which protected their privacy. Email contacts enabled the researcher to get to the clients without need for physical contact.

Due to the high levels of relapse among those who had undergone treatment some administrators were reluctant to discuss the issue. They took this as a failure on their side. One rehab could only talk with certainty of only eight clients who had not relapsed from a population of more than a hundred clients and who were active on the institution's alumni WhatsApp, but the researcher assured them that this seemed to be the global trend where relapses were taking place at very high rates despite all the resources spent.

The researcher concentrated on male subjects as there were very few female subjects in the facilities that were studied. During the period of study, one of the county's oldest and biggest rehab and which had already treated a substantial number of females had just had its license suspended and thus data from the institution could not be fully accessed. More stigma also seemed to be attached to substance abuse among women and few were ready to come out and admit they had been through treatment or to discuss their recovery journey.

3.7 Data Analysis

The data generated by questionnaires was analyzed descriptively by use of frequencies, percentages and means and inference by use of Pearson correlation and regression analysis. The Statistical Package for Social Science (SPSS) statistical software, version 25.0 was used to aid in the analysis. The findings are presented in Figures and Tables. Qualitative data from interviews was subjected to content analysis. The findings have been used to strengthen those from questionnaires.

3.8 Legal and Ethical Considerations

The researcher maintained the highest ethical conduct, keeping to the set standards and upholding the dignity, rights, and autonomy of the subjects. There was strict adherence to legality, academic honesty, and procedures. The researcher followed the Kenya Addiction Professional Code of Ethics which is applicable to what appertains to addiction and chemical dependency training, practice and research at organizational, institutional and personal levels. (NACADA 2011). This code is informed by other codes of ethics including the American Counselling Association code of ethics (2005) and the British Association of Counselling and Psychotherapy Ethical Framework. The code guides practice and regulate activities in addiction treatment including research to ensure optimum client welfare. It defines professional behaviour, and outlines professional malpractices to be avoided. The ethical principles followed by the researcher were respect for autonomy which is supporting the client's self-determination and liberty, beneficence which is the obligation to do good for the client, non-maleficence where the researcher committed to do harm to the client, justice where client received equal and fair treatment, fidelity where researcher practiced honesty and the client was showed self-respect and by ensuring competence to carry out the research. Before proceeding to the field, the researcher obtained necessary letters of introduction from Africa Nazarene University, and a research permit from the National Commission for Science, Technology & Innovation (NACOSTI). The researcher obtained all necessary permissions from the rehabilitation centers and the subjects who gave informed consent before taking part in the research. There was strict referencing of all sources cited and plagiarism was completely avoided. The anonymity of the respondents was protected, and the researcher ensured the safety of all private data collected.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This study shows the results of the study that was conducted in Gilgil Sub-County, Nakuru County. The findings are arranged as per the objectives of the study.

4.2 Response rate

A total of 86 participants were targeted to be reached and 86 were reached, representing a response rate of 100%.

4.3 Socio-Demographic Characteristics

The total number of respondents was 86, all of them being male that is (100%). Majority of the study participants were between the ages of 26-30 years, i.e. 25 (29.07%), followed by 31-35 years, i.e. 18 (20.93%), then 21-25 years, i.e. 14 (16.28%), 41-45 years, i.e. 9 (10.47%), 15-20 years, i.e. 6 (6.98%), 36-40 years, i.e. 6 (6.98%), 46-50 years, i.e. 6 (6.98%), 51-55 years, i.e. 1 (1.16%), and lastly 56-60 years, i.e. 1 (1.16%).

Majority of the study participants were single, who were 52 in number representing 60.47%, followed by married, numbering 25 (29.07%). In addition, 6 participants were separated, i.e. 6.98%, while 3 were divorced, i.e. 3.49%.

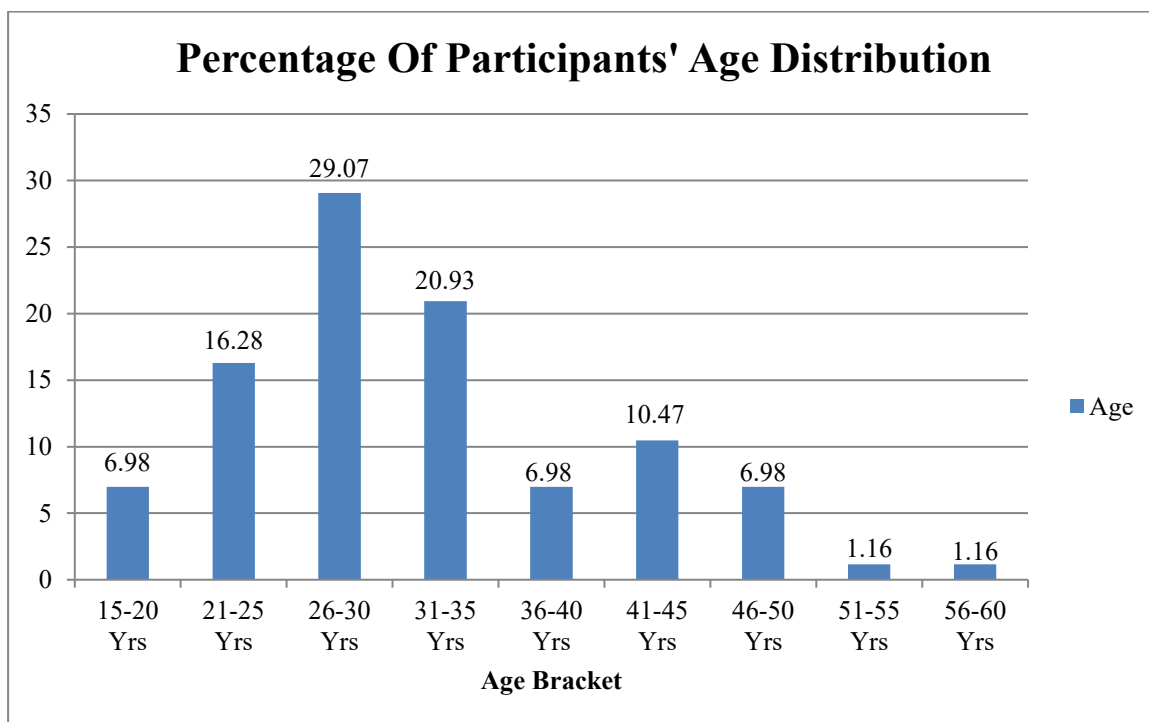
In terms of education level, 61 participants, i.e. (70.93%) studied up to college level, 20 (23.26%) attained high school level of education, while 5, i.e. (5.81%) studied up to primary level of education. Moreover, 39 (45.35%) are self-employed, 22 (25.58%) are unemployed, 16 (18.60%) are employed, 7 (8.14%) are still studying (students), 1 (1.16%) is a casual laborer, while 1 (1.16%) is retired.

Table 1: Socio-Demographic Characteristics of the Study Participants.

Variable	Category	Frequency (N=86)	Percentage (%)
Gender	Male	86	100
	Female	0	0.0
Age	15-20 Years	6	6.98
	21-25 Years	14	16.28
	26-30 Years	25	29.07
	31-35 Years	18	20.93
	36-40 Years	6	6.98
	41-45 Years	9	10.47
	46-50 Years	6	6.98
	51-55 Years	1	1.16
Marital Status	Single	52	60.47
	Married	25	29.07
	Divorced	3	3.49
	Separated	6	6.98
Level of Education	Primary	5	5.81
	High School	20	23.26
	College	61	70.93
Employment Status	Employed	16	18.60
	Self-Employed	39	45.35
	Unemployed	22	25.58
	Casual Laborer	1	1.16
	Studying (student)	7	8.14
	Retired	1	1.16

Majority of the study participants were between the ages of 26-30 years, i.e. 25 (29.07%), followed by 31-35 years, i.e. 18 (20.93), then 21-25 years, i.e. 14 (16.28%), 41-45 years, i.e. 9 (10.47%), 15-20 years, i.e. 6 (6.98%), 36-40 years, i.e. 6 (6.98%), 46-50 years, i.e. 6 (6.98%), 51-55 years, i.e. 1 (1.16%), and lastly 56-60 years, i.e. 1 (1.16%). The distribution is shown in the figure 2.

Figure 2: Percentage of Participants' Age Distribution.



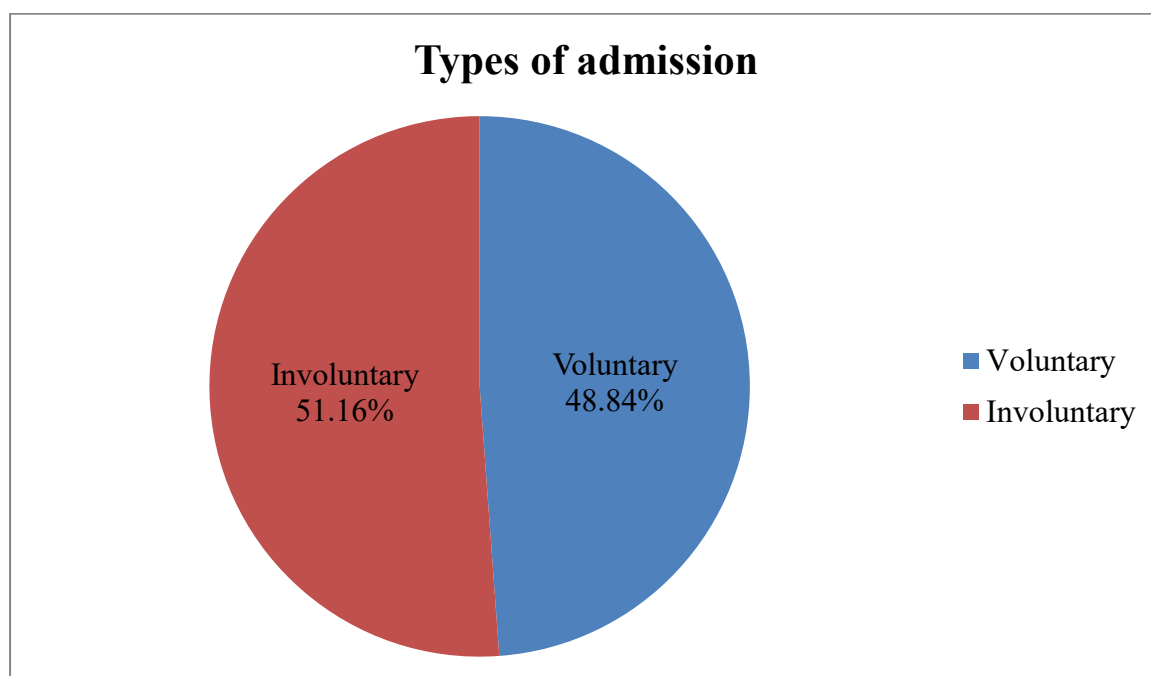
4.4 Participants' Admission Type, Drug Abused and Program Completion

Majority of the respondents reported that they were admitted to the program involuntarily, i.e. 44 representing 51.16%, while those who were admitted voluntarily were 42 (48.84%). Furthermore among the coerced clients 7 participants, i.e. (8.14%) reported that they were admitted out of family pressure, 2 (2.33%) by police, 5 (5.81%) reported that they were tricked in joining the program, while 4 (4.65%) reported being referred. The distribution is shown in table 2.

Table 2: Participants' Admission Type, Drug Abused And Program Completion.

Variable	Category	Frequency (N=86)	Percentage (%)
Type of Admission	Voluntary	42	48.84
	Involuntary	44	51.16
	Family Pressure	7	8.14
	By Police	2	2.33
	Tricked	5	5.81
	Referral	4	4.65
	Didn't specify	26	30.23
Drug Abused	Alcohol	37	43.02
	Poly-substance Use	39	45.35
	Prescription Drugs	2	2.33
	Khat/Muguka	2	2.33
	Marijuana/Cannabis/Bhang	6	6.98
3 Months Sobriety after Program Completion	Yes	69	80.23
	No	17	19.77
	Relapse	3	3.49
	Absconded	2	2.33

Figure 3: Types of admission.



4.5 The Effect of Voluntary Treatment in Rehabilitation Centers on Relapse in Gilgil Sub-County.

The first objective of the study was to examine the effect of voluntary treatment in rehabilitation centers on relapse rates. Qualified success by the researcher meant at least three months of continuous sobriety after leaving the treatment center. Participants' who were admitted voluntarily reported good progress and willingness to stop the use of drugs/substances. Majority reported to have remained sober for over a year, i.e., 17 (40.70%), 11 (26.74%) remained sober for between 8-12 Months, 5 (11.90%) stayed sober for about 7 Months, and 9 (21.40%) stayed sober for a period of three months.

4.6 The Effect of Enforced Treatment in Rehabilitation Centers on Relapse in Gilgil Sub-County.

The second objective was to assess the effect of enforced treatment in rehabilitation centers on relapse. Participants who reported to have been admitted involuntarily relapsed almost immediately after being discharged from the rehabilitation centers with some drinking on the very day of discharge. Majority reported to have relapsed within the first 3 Months after being discharged from the rehabilitation centers, i.e. 11 (25%), 26 (59.09%) relapsed after 3 Months, 4 (9.09%) have been on and off recovery program, while 3 i.e. (6.81%) are under psychiatric treatment. The distribution is shown in table 3.

Table 3: Participants' Duration of Stay after Completion of Rehabilitation Program.

Variable	Category	Frequency (N=86)	Percentage (%)
Time Sober for All.	1-3 Months	9	10.47
	4-7 Months	5	5.81
	8-12 Months	11	12.79
	More than a Year	17	19.76
	After Care	7	8.13
Relapsed	1 Week- 3 Months	11	12.79
	After 3 Months	26	30.23
	On & Off Recovery Program	4	4.65
	Psychiatric Treatment	3	8.14

Nb. Those in on and off recovery and psychiatric treatment are included in after care.

4.7 Official Government and Employer Enforced Treatment

In the third objective the researcher found very few respondents who were treated under the general objective of coerced respondents. Among those who were coerced into treatment were those who were in formal employment in both the public sector and private sector and entered treatment to avoid losing their jobs. The study found that enforced treatment in rehabilitation centers had positive outcomes on relapse rates. According to the respondents, this approach is believed to be for the general good of them since even though it may be termed as 'involuntary', they believe that it works since they understand that it is aimed at restoring their general well-being so that they may be productive at work and be able to contribute to the society they come from as narrated by the respondents.

Sometimes the employers send us to the rehabilitation centers whenever they notice that maybe we've become alcoholics and our performance in the company has reduced. At first, we may not understand why they have made that

decision but later on we realize that if we didn't go to the rehab, maybe the situation would be worse, and we may end up losing our job. So, for me I really appreciate the efforts made by my employer. (FGD 2, Gilgil).

Responses from government employees were however restricted by the nature of some of the respondent's work. Those in senior position did not want their past issues with substances to be dredged fearing the stigma, while others worked in sensitive dockets where information was not openly divulged. Soldiers and policemen said they needed permission from their superiors which was not always granted. Teachers and generally other civil servants were generally forthcoming with information and the TSC showed willingness to help in tackling the issue of substance abuse among its workers.

4.8 Co-Occurring Psychiatric Disorders

Some of the study participants were under psychiatric management due to co-occurring psychiatric disorders. Among them 14, i.e., 12.39% were being treated for drug induced psychosis, 1 (0.88%) had bipolar disorder, 1 (0.88%) had diabetes due to prolonged alcohol use, while 1 (0.88%) had anger issues. This is shown in table 4 below. The impact of co-occurring psychiatric illnesses on treatment outcomes and relapse will be looked at further in chapter 5.

Table 4: Co-Occurring Psychiatric Disorders.

Variable	Category	Frequency (N=113)	Percentage (%)
Co-occurring Disorders	Psychosis	14	12.39
	Bipolar	1	0.88
	Diabetes	1	0.88
	Anger Issues	1	0.88

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Discussion

5.1.1 Socio-Demographic Characteristics of the Respondents

The respondents in this study were all male since they are the majority in most of the rehabilitation centers. In addition, the majority of the study participants were between the ages of 26-30 years, i.e., 25 (29.07%). Moreover, the majority of the study participants were single, i.e., 52 in number representing 60.47%. In terms of education level, 61 participants, i.e. (70.93%) studied up to college level, 20 (23.26%) attained high school level of education, while 5, i.e. (5.81%) studied up to primary level of education. Moreover, 39 (45.35%) are self-employed, 22 (25.58%) are unemployed, 16 (18.60%) are employed, 7 (8.14%) are still studying (students), 1 (1.16%) is a casual laborer, while 1 (1.16%) is retired. The majority of the drug users' start using drugs and substances while in young.

Figures for clients aged above forty-five years indicate that men in this age group are in the minority within the study population. Interviews with men in this age group indicated that they had started drinking as young men and that most of those who they used to drink with had stopped using substances. A big percentage of these men were separated or divorced, and they attributed their marital woes to their abuse of substances, with most of them abusing alcohol. The ages forty years and below are the most affected by substance abuse. These statistics are significant as these are a person's most productive years. This translates to economic loss to the user, the family and society. The majority are well educated, and this compounds the loss. 61 of the respondents (70.93%) have a college level of education while 20 (23.26%) have

attained high school level of education. The big proportion of educated people in rehab due to substance abuse may indicate two things.

1. With education comes access to drugs or to knowledge about drugs. Educated people can afford drugs, or
2. Educated people come from family backgrounds that are wealthy enough to afford the high fees charged by rehabilitation centers in Gilgil sub-county.

The data also shows that many are single or separated, indicating the toll substance abuse takes on the family unit. In parts of Gilgil sub-county some nursery schools have had to close down due to lack of learners. (The Star, 22nd April 2012)

The 7 (8.85%) respondents who were still in high school and thus legally juveniles, shows a worrying trend where substance abuse is being found among the younger generations. When teachers catch students with illegal drugs, the reaction could be to turn them over to the police as criminals or have them undergo treatment in a rehab. Enlightened schools take this route. The students willingly agreed to undergo rehab and are thus categorized as voluntary for the purpose of this study. At the time of compiling this report, the students are back in school and have not reverted back to drug use.

Another population segment addressed in this study are those respondents who had co-occurring disorders. Apart from substance abuse disorder they also suffered from other mental and physical illnesses. One of the most serious mental illnesses was psychosis which in many cases translated to schizophrenia. With clients suffering from schizophrenia the symptoms included hallucinations and delusions. Their speech was disorganized as was their behavior. At times they showed diminished emotions. These conditions persisted for more than six months and were not attributable to a substance such as drugs. Substance induced psychotic disorder presented with the same symptoms as delusions and hallucinations. People with schizophrenia were also likely to use

substances making those around them suspect that it was the substance abuse that was causing the psychosis. From respondents whose psychosis was substance induced their responses indicated that the symptoms developed soon after they took the intoxicating substance or were going through withdrawal. (DSM-5 TR 2022) The clients had no history of psychotic evidence prior to taking the intoxicating substance. Such clients were taken to rehab when their mental status was not capable of allowing them to give informed consent to the treatment. 14 of the respondents were in this category. Before the drugs could have an impact on their mental state, these clients were very difficult to handle due to their weird behaviour. When put on a regimen of anti-psychotic medications, these patients showed great improvements and by the third month they functioned normally. As they recovered and became rational, they accepted their stay at the rehab, and on discharge many continued functioning normally. However, schizophrenia is a long-term mental condition, and they will need to be on medication for the foreseeable future.

One of the respondents had bipolar and while not as severe as schizophrenia this condition is characterized by high and low moods which make it hard to predict the intentions of the client. Bipolar I is characterized by manic and depressive states of mood. In the manic state, the patient is in an expansive mood, and elevated mood. There is elevated self-esteem, decreased need for sleep and the mood disturbance is severe enough to interfere with normal functioning of the client. These symptoms are not associated with substance abuse or medication, and they last at least seven days. Bipolar II patients show the same symptoms when they are in the hypo-manic state but in this case, they last at least four days. It is often associated with co-occurring mental disorders with 60% of bipolar II patients having three or more mental disorders.

Anxiety and substance abuse disorders occur in individuals with bipolar II disorder at a higher rate than in the general population. (DSM 5-TR 2022) The anxiety and substance abuse disorders do not follow the course of the illness that is truly independent from that of the bipolar disorder but have a strong association with mood states with substance abuse being associated with depressive states. Substance use disorders are similar for both types of bipolar with about 42% abusing alcohol and 20% abusing cannabis.

The one respondent who had been diagnosed with bipolar joined rehab willingly but two weeks into the program he insisted on leaving. Refused permission to leave, he fell into depression which lifted a day later and all talk of going home was abandoned. It is thus difficult to classify such a client as voluntary or involuntary given that such are likely to have big mood swings. Fortunately, medication helps to stabilize the mood swings. The client is now back to his work but like the case of schizophrenia he will be on medication for the foreseeable future.

One case of dual diagnosis involved diabetes where abnormal sugar levels led to the client showing signs of dementia and psychosis. Diabetes is managed by medication and insulin injection and the mental changes that it can bring make it hard for one to conclude whether this admission was voluntary or not. However, in a rehab setting it was much easier to administer medication, deal with withdrawal from the substance abused and control the diet of the client to confirm to his status as a diabetic patient.

The one case of anger management was an involuntary admission following the respondents overreacting to an insult at his place of work and beating three of his coworkers so badly that they needed hospital care. The management decided he should be treated for anger management issues. If he agreed to this, no charges would be

preferred. This is the only respondent who did not have a problem with substances. At the time of compiling this study, he has not had a repeat of anger outburst.

The demographic data also captured the employment status of the respondents. These were categorized as employed numbering 23, self-employed who numbered 50, unemployed numbering 27, two casual laborer's, ten students and one retired civil servant. The self-employed respondents comprised the biggest proportions of those who took part in the study, followed by the unemployed. Many of those who declared themselves as self-employed eked a precarious existence running small enterprises which could hardly support their drug habit. They did piece work such as shoe repairing, carpentry, and ran small cyber-cafes. Some stooped to petty crime including phone snatching. One of the respondents bore scars following a beating by a mob for attempted phone snatching. In terms of having ready cash, they were not very different from the unemployed.

Both the self-employed and the unemployed mostly partook of the cheap second-generation alcoholic beverages, or chewed *muguka* the cheaper but more potent variety of khat that is now found in all Kenyan towns. The unemployed clients said they got money from begging from well off relatives and friends who sympathized with their pathetic situation. They did odd jobs when they were sober enough. For the educated they employed their literary skills helping the uneducated to draft official letters, fill out official government forms and writing project proposals for local self-help groups seeking donor funds. Others resorted to pilfering household items from their homes, family businesses and farms. The pilfering of household goods made many parents to lock them out of the house during times when there were no other family members in the home. Many came from families that were economically well off as attested by the

fact that the families were able to pay the hefty fees charged by rehabs in Gilgil sub county. This particular group rarely had medical insurance.

The employed respondents were either working for the government or for the private sector. Some held high positions in their places of work but due to their drinking habits they were always in trouble with their superiors. Many had their rehab fees paid by their employer as they had the requisite insurance cover which covered the cost of addiction treatment. Most of them were in treatment due to the pressure exerted by their employers and they acceded in order to save their jobs and avoid being sacked. They had already received warning letters as their drinking had negatively affected their work performance. Their drug of choice was usually higher quality alcoholic beverages although they could at times partake of the cheaper second-generation drinks when finances were low.

The two casual labourers had been identified by a clergy man who usually gave them odd jobs. When he said the church was ready to sponsor their treatment at a church ran rehab they accepted. That is how it was that they were in the rehab whose fees they could never have been able to afford. These two epitomizes the essence of voluntary attendance. After completion, they were absorbed as workers by the church.

The seven high schools were not working and after their stint at the rehab they went back to school. The retired civil servant had sunk into drinking after he failed to adjust to life outside formal employment. He had his pension, but his drinking had led to health problems and some unwise financial undertakings where he had lost a lot of money. His sons and daughters convinced him to check himself into a rehab. After a liver function test showed that he was on the verge of developing full blown liver cirrhosis he agreed to attend rehab. He has been sober for more than one year.

5.1.2 The Effect of Voluntary Treatment in Rehabilitation Centers on Relapse

The first objective of the study was to examine the effect of voluntary treatment in rehabilitation centers on relapse. Participants' who were admitted voluntarily reported good progress and willingness to stop the use of drugs/substances. Majority reported to have remained sober for over a year, i.e., 35 (40.70), 23 (26.74%) remained sober for between 8-12 Months, 9 (10.47%) stayed sober for a period of three Months, 3 (3.49%) stayed sober for about 7 Months, while 5 (5.81%) reported to have joined the aftercare program.

However even in this group of voluntary clients, relapse cases still cropped up with time indicating that successful rehabilitation was not only hinged on voluntary acceptance of treatment but on many other factors. On a positive note, many maintained abstinence for a much longer period of time than their coerced colleagues. That data is not captured in this study, but those who relapsed were more willing to go back to treatment when requested to do so and where the money to pay for treatment was available.

There was also another group off voluntary clients who agreed to the treatment in order to gain something from their families. Some family heads promised their sons business opportunities such as motorcycle taxis, work abroad and vehicles once they sobered up. Such clients after getting the promised reward took different recovery routes but there were a number who relapsed soon after to the great disappointment of their families.

5.1.3 The Effect of family enforced Treatment in Rehabilitation Centers on Relapse

The second objective was to assess the effect of enforced treatment in rehabilitation centers on relapse. Coercion could come from the family, the government or from the client's employers many participants who reported to have been admitted involuntarily relapsed almost immediately after being discharged from the rehabilitation centers. Many reported to have relapsed within the first 3 Months after being discharged from the rehabilitation centers, i.e., 11 (25%), 26 (59.09%) relapsed after three months 4 (9.09%) have been on and off recovery program, while 3 i.e. (6.81%) are under psychiatric treatment.

In this group was to be found the biggest number of relapses as well as a variety of admission methods. Many of the respondents had pressure exerted on them by the family to push them into accepting treatment in a rehab. Pressure took various forms including denial of food, being locked out of the homestead when the other members of the family were not there (this was to prevent them from stealing household goods to batter for a drink or two), denial of cash and being kept out of family decisions. They were even kept out of meetings held to discuss their well-being and their comings and goings were strictly monitored. The effect on their egos and self-esteem was devastating. Eight of the respondents got into rehab this way.

At times the family would involve the police, especially where the abuser resorted to violence or blatant theft to feed his drug habit. The police would then arrest the person and convey him to the rehab where he would be compelled to undergo treatment. Two of the respondents were taken for treatment through this method.

Trickery was also used. Some of the respondents were told that they were being taken for a drink only to end up in a rehab where guards prevented them from leaving. Others were offered drinks by relatives and friends until they were in a stupor and when they woke up, they found themselves in a rehab. One told the researcher that he was deceived that he was being taken for a job interview but found himself in a rehab with guards and walls too high to scale. A senior government administrator was told that he was going to attend a seminar on good governance. He ended up locked up in a rehab. The anger among most of these clients made them very unwilling participants in the recovery process and many were simply biding their time waiting for the discharge date. A number of these relapsed on the first day. Six of the respondents fall in this category.

Four of the respondents were referred to the rehabs from psychiatric hospitals. These were those who had suffered a psychotic episode and been taken to the psychiatric hospital for treatment. After a regimen of anti-psychotic medications treated their psychosis, they were sent to rehabs for substance abuse management.

The data also indicated the substances that the respondents had abused which led to their admission. Alcohol, particularly the cheap potent brews that are referred to as second generation alcohol, was abused by 37 of the respondents. The origin of this alcohol was industrial alcohol distilled in sugar and molasses plants in western Kenya. Diluted with water in bootleg bottling industries within Nakuru County with food colour added, this cheap alcohol was subject to adulteration, bore fake inspection stickers and was likely to be laced with other substances such as methamphetamine, ketamine, diazepam, and amphetamines to make it more potent and addictive. Urine tests for the clients in the rehab showed the presence of these substances despite all the clients attesting to the fact that they had never heard of these substances. At times the

mixing went wrong, and the concoction turned into poisonous methanol. Hundreds had been killed and thousands blinded, but so addictive was the stuff that drinkers went back for more. The lacing of the drinks with the drugs mentioned above made the drinker completely dependent on the concoction served in small bottles.

Thirty nine of the clients were poly substance abusers. This group abused alcohol and a variety of other substances. These included cigarettes, snuff, cannabis (bhang), and khat. Khat was abused by two of the clients but most of the younger clients abused a cheaper but more potent variety of khat called *muguka* whose potency was blamed for increasing cases of psychosis among its users. The biggest challenge in dealing with this herb is that it is legal, and its producers have government support while its sale and consumption is done openly with no restrictions. The use of many substances presented a challenge to the rehabs as some of the abused substances were stimulants while others were depressants.

Two of the respondents had abused prescription drugs. In this list were Valium, Artane (trihexyphenidyl), methamphetamine and Chlorpromazine. These are medications usually given by prescription to treat mental illnesses but when abused can give the user a high. Availability of these drugs on the streets indicated poor supervision of pharmacies and chemists and open flouting of the law for quick gains. It also meant that when abusers of these medications ended up in rehab, treating them proved difficult as some of these same drugs that they had abused were used to treat withdrawals and psychosis. Alternative medications had to be prescribed, increasing the cost of treatment.

Marijuana (bhang) was abused by six of the respondents. These were generally the younger clients in their teens or early twenties. Withdrawal from marijuana was

usually less severe than for the other substances. Cigarette smokers tended to have the most difficult time trying to stay without and this led to many cases of absconding as they escaped to state their cravings for nicotine, the active ingredient in tobacco.

On program completion, all of those sampled completed the ninety-day program but 17 were in recovery for less than three months after completing the treatment program.

Data for the whole program showed that 9 relapsed within three months of leaving the treatment program, 3 were sober for between 4 and 7 months, 23 stayed sober for between 8 and 12 months while 35 stayed sober for more than a year. 5 came back for after care and in this group are those who had relapsed.

5.1.4 Legal official, employer enforced treatment

The third objective of the study also purposed to explore the effect of government-employer enforced treatment in rehabilitation centers on relapse. According to the respondents, this approach is believed to be for the general good of them since even though it may be termed as ‘involuntary’, they believe that it works since they understand that it is aimed at restoring their general wellbeing so that they may be productive at work and be able to contribute to the society.

Government employees belong to different categories of workers. Teachers are under the teachers’ service commission (TSC) while the other civil servants are under the public service commission (PSC) The Kenya Defense Forces have their own chain of command as does the police. All categories had different ways of dealing with substance abuse. The TSC has a policy of sending its members with substance abuse problems to rehabilitation programs which are fully paid for by the employer. Affected teachers have to attend these programs or face disciplinary actions such as interdiction, demotion, or sacking. In other government departments the issue is not so clear. KDF

treats such cases as indiscipline and punishes them while the Kenya Police Services has embraced rehabilitation and treatment for mental illnesses.

The Kenya police service provided another aspect to the issue of coercion. Decision to send an officer for addiction treatment was made by the superior officer. The junior officer had no way of countermanding this decision, which was now an order. Failure to obey could be likened to mutiny punishable under the law, as would absconding from the rehab into which the officer was placed. Thus, however bad the situation got in the rehab, he could not escape nor raise any complaints, an option that was available to civilian clients. Police officers, prison warders, National Youth Services personnel all fell into this category.

5.2 Conclusion

Drug and substance use is currently a major problem especially among the youth. The findings from this study suggest that stoppage of use is dependent on the type of admission, and the individual's willingness to stop since coercion or the use of force only makes things worse. On the other hand, since individuals are confined in a controlled environment, counselling and psychosocial support plays a major role in changing the mindset of individuals who are otherwise admitted without their consent. However, the issue of relapse is not clear cut, because even amongst those who attend treatment voluntarily, a substantial percentage still go on to relapse. Other factors are in play. Proponents of the disease model of addiction want the condition to be treated as a disease with the use of medication, a number of which are already in the market. The moralists want addiction to be treated as a moral failure. Between these two opinions compromise is difficult. But the researcher will stand with pragmatic science where results can be quantified and proved empirically.

5.3 Recommendations

1. The family involvement in the rehabilitation and treatment of drug/ substance use disorders ought to be enhanced. Many of the referrals to treatment centers stem from families who have the onus of convincing their loved ones to seek treatment. The use of coercion or persuasion is a choice that the family should consider very carefully.
2. Parliament should come up with unambiguous legislation defining whether coercion into addiction treatment is legal or not. This failing, the law should state in clear terms the circumstances in which coercion into addiction treatment can be done legally. Such circumstances should include instances where the substance use by the client makes him or her a danger to self and others.
3. The family should get psychoeducation in order to fully understand what is going on in the brain of the person abusing substances. Certain activities within the family are capable of instigating a relapse and these need to be avoided. Rehabs should have policies and procedures that guide and encourages the involvement of clients' families and significant others in the treatment process. Rehabs should encourage the support and participation of the client's and significant others as an essential and integral component of treatment and rehabilitation. The center should offer practical support to assist families and significant others to participate in the treatment process. It should offer family therapy to address maladaptive interactions within the family, or new issues related to the reintegration of the client into the family and community.
4. Preadmission counselling is needed for all clients before they enter rehabs. This will ensure they start their treatment without any ambivalence or feelings or resentment where they feel they are being wrongly confined against their will.

5. This study did not study both genders and this needs to be looked at. Addiction amongst females tend to have different dynamics due to their biological make up, their roles as mothers and society's perception of substance use amongst females.
6. After-care especially for those who have successfully completed the recommended program should be enhanced in order to prevent them from relapsing. Some of the institutions in Gilgil had a six month after care program where a former client could visit the rehab once a month for free follow up. Few took this opportunity, and the rehab had no way of getting to them in their homes. Rehabs should have policies on continuing care. The center should provide programs and structures that to enable the client to effectively transition to their families and reintegrate into their communities. After care should involve following the client to their home setting and getting them in appropriate after programs like in getting them enrolled in local self-help groups such as AA. After care should include outpatient services, halfway houses, transitional homes, and other services. The outcome should be clients participating in continuing/aftercare and getting reintegrated into the community.
7. There need to be more research done on the efficacy of anti-addiction medications. Several have been approved by the FDA and WHO but their use in Gilgil and Kenya in general have never been studied to show how they can help eradicate relapse and improve recovery rates while reducing the cost of addiction treatment.

8. Further research on voluntary and involuntary admission should be done. Areas of concern include the family, the military, world of employment and the educational system.
9. Dual diagnosis where addiction occur alongside mental disorders should also be studied more thoroughly as patients who should be in psychiatric wards and are abusing substances are ending up in rehabs instead. Psychotic patients may be incapable of making rational decision as to whether they should seek treatment for substance abuse disorder.

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APPENDICES

APPENDIX I: QUESTIONNAIRE

This questionnaire has been prepared by a Master of Arts Student Studying Counselling Psychology at Africa Nazarene University. The questionnaire is for the purpose of academic research. Responses given will be treated with confidentiality. The questionnaire does not ask the respondents to provide their names.

SECTION A: GENERAL INFORMATION

1. Tick alongside your gender
Male Female Other
2. Age bracket (years)
15-21 22-39 40-49 50-59 Above 60
3. Marital status
Single Married Divorced Separated Widowed
4. Education level attained
Never been to school Attended partly Primary certificate
High school certificate Tertiary
5. Employment
Employed Self-employed Unemployed Job seeker

SECTION B: ADDICTION TREATMENT HISTORY

1. When did you last go for addiction treatment?
One month ago Three months ago Six months ago
More than six months ago
2. Types of drugs abused
Alcohol Narcotics Multi-drug use
Prescription drugs
3. Mode of Admission [Tick all that apply]
 - (i) I made a conscious decision on my own
 - (ii) I was compelled by sanctions by family
 - (iii) I was forced to attend rehab by the government (police, court)
 - (iv) I was forced to attend rehab by my employer

SECTION C: VOLUNTARY TREATMENT AND RELAPSE

4. State how you feel about the stated activities on a scale of 1 to 5 where
 1=Strongly agree. 2= Agree; 3=Neither Agree Nor Disagree; 4=Disagree;
 5=Strongly Disagree.” Tick appropriately.

	1 [Agree]	2 [Strongly agree]	3 [Neither Agree Nor Disagree]	4 [Disagree]	5 [Strongly disagree]
Voluntary treatment reduces the chances of relapse					
It is possible for one to adhere to treatment protocols if they volunteer for treatment					
There is tangible behaviour change regarding drug use if one volunteers oneself for treatment					
Addict who decide to seek help have stronger self-determination and can easily deal with relapse					

SECTION F: RELAPSE

5. Kindly respond to the following questions by answering TRUE or FALSE
- (i) I have taken a drug in the last three months TRUE [] FALSE []
- (ii) I am a member of a support group for recovering addicts
 TRUE [] FALSE []
- (iii) I avoid people in my support group and miss meetings TRUE [] FALSE []
- (iv) I have been sober for the last six months TRUE [] FALSE []
- (v) I will take a drink if I am sure nobody will find out TRUE [] FALSE []

8. Indicate your level of agreement with the statements provided below

	1 [Agree]	2 [Strongly agree]	3 [Neither Agree Nor Disagree]	4 [Disagree]	5 [Strongly disagree]
Taking a drug once is not relapse					
I will join family members for drinks on holidays					
I will lose friends if I stop using drugs					
I will go back to rehab if I relapse					

Thanks for Your Time

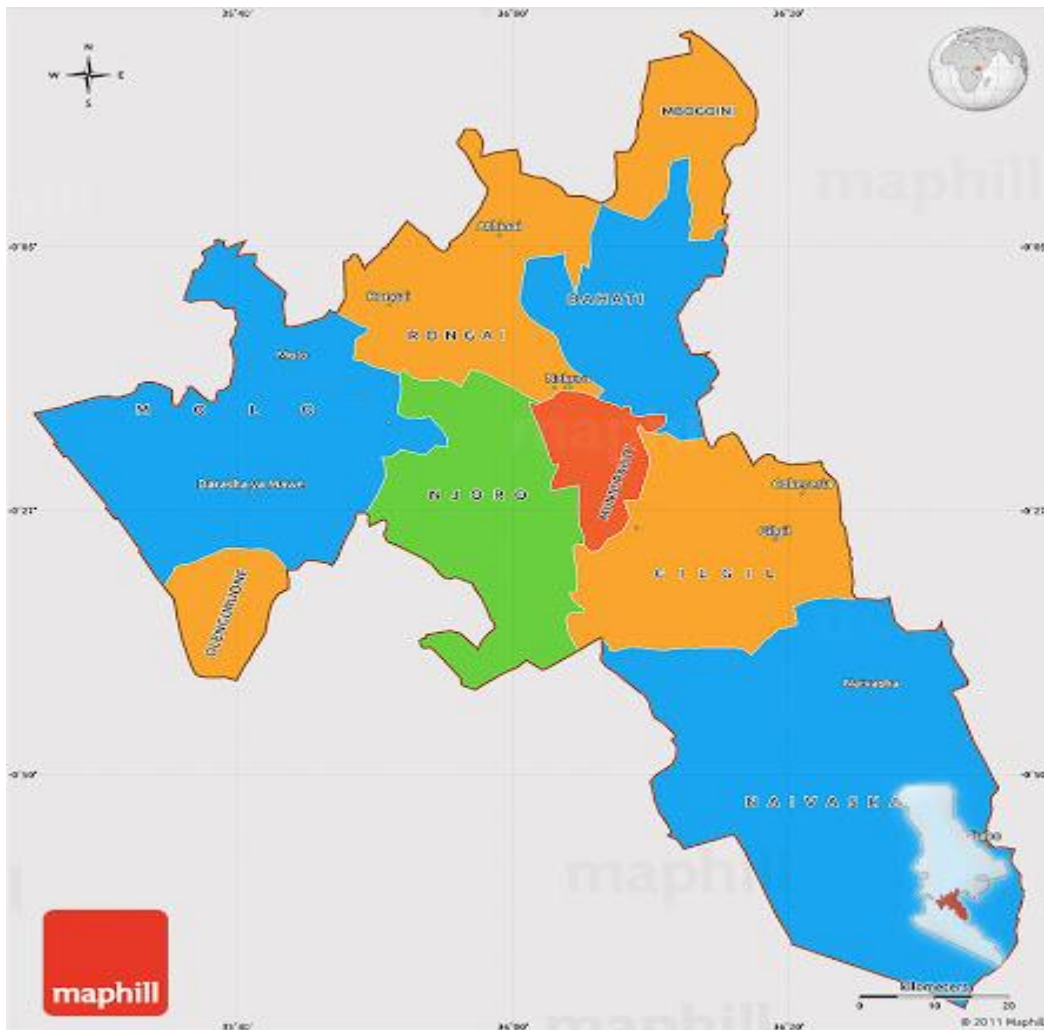
APPENDIX II: INTERVIEW GUIDE

- i. How does voluntary treatment in rehabilitation centers on relapse in Gilgil Sub-County work? Please Explain.
- ii. What is the effect of family enforced treatment in rehabilitation centers on relapse in Gilgil Sub-County? Please explain.
- iii. What is the effect of government/employer enforced treatment in rehabilitation centers on relapse in Gilgil sub-County? Please explain.
- iv. In which other ways can relapse be dealt with among addicts in rehabilitation centers in Gilgil sub-County? Please explain.





Nakuru County

Source: Map of the World



Map 2: Nakuru County and Sub-Counties

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12th June, 2023

RE: TO WHOM IT MAY CONCERN

Kimuthia Charles Muturi (19J03EMCP004) is a bonafide student at Africa Nazarene University, in the School of Humanities and Social Sciences, Counseling Psychology Department. He has finished his course work and has defended his thesis proposal entitled: - "Effect of Voluntary and Involuntary Attendance to Rehabilitation Centers on Relapse in Nakuru County".

Any assistance accorded to him to facilitate data collection and finish his thesis is highly welcomed.

University letter of introduction