INFLUENCE OF ALCOHOL AND DRUG ABUSE ON FAMILY COHESION: A CASE OF SELECTED REHABILITATION PROGRAMS IN KIAMBU COUNTY, KENYA

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DECLARATION

I declare that this thesis is my original work and has not been presented for a degree or any other academic award in any other University.

Signed: _____ Date: _____
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This thesis has been submitted for examination with my approval as Supervisor

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TABLE OF CONTENTS

DEDICATION

This work is dedicated to my beloved husband Daniel Muiga Gikonyo who has tirelessly supported me in the journey of 'becoming.' It is also dedicated to the many families who have tasted the scourge of alcohol and drug abuse and can still afford to walk with their heads high despite the emotional pain, confusion and stigma it generates in the family.

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ABSTRACT

Consequences of alcohol and drug abuse (ADA) not only affect the consumer but also the family members. The purpose of this study was to establish the influence of ADA on family cohesion with a view to establish how this happens among families of recovering clients in selected rehabilitation programs in Kiambu County. The Circumplex Model of Marital and Family systems was used as the theoretical framework. This study used a correlational research design. The target population consisted of all 360 clients admitted in NACADA registered rehabilitation centres in Kiambu County. A sample of 114 respondents was selected through stratified random sampling technique. Data was collected using a questionnaire. Quantitative data was analyzed using descriptive statistics and moderated regression technique while qualitative data was analyzed using thematic analysis. The study established that alcohol was the main drug of choice among ADA patients, followed in order of popularity by tobacco, marijuana and khat. A moderately high mean score of 3.35 was established on a scale of 1 to 5 with respect to family cohesion. A weak negative correlation was observed between ADA and family cohesion (r=-.178, p>.05). A positive correlation was established between substance use in the extended family and ADA (r=.359, p<.05). There was no statistically significant interaction effect between family risk and protective factors and ADA on family cohesion (B=-.026, p>.05). Neither was there a statistically significant main effect of either ADA ((B=-.029, p>.05) or family risk and protective factors (B=-.217, p>.05) on family cohesion. One unit increase in alcohol and substance abuse explained 0.104 unit reduction in family cohesion to a statistically insignificant degree (B=-.104, p>.05). It was found that ADA significantly predicted family changes and adaptation whereby one unit increase in ADA was associated with 0.226 increase in family changes and adaptation (B=0.226, p<.05). However, changes and adaptations in family systems did not significantly mediate between ADA and family cohesion, R^2=.025, F(1)= 2.005, p>.05. Social support was a salient theme drawn from qualitative findings. The study concluded that young male adults were most affected by ADA. Alcohol addiction was the main disease that rehabilitation centers were treating. Families of clients recovering from ADA were generally cohesive. They were characterized by a degree of optimal functioning. However, rigidity and deficiencies in communication were manifest. Further, incidences of ADA in the extended family was a significant risk factor that needed management. Alcohol and drug abuse had limited impact on family cohesion, though the impact on family changes and adaptations in family systems was adverse. The study recommended that rehabilitation centers should not only focus on treating rehab clients but also become a support system to enable family systems to accommodate changes and adapt positively to the inevitable changes in the family. Future research was proposed to compare and contrast the dynamics of ADA and family cohesion using female rehab client samples.

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS AND ACRONYMS

ADA	Alcohol and Drug Abuse
AFMs	Affected Family Members
ASI-6	Addiction Severity Index-6
CADUMS	Canadian Alcohol and Drug Use Monitoring Survey
CTADS	Canadian Tobacco, Drugs and Alcohol Survey
DSM	Diagnostic Statistical Manual
FACES	Family Adaptability and Cohesion Scale
FES	Family Environment Scale
HIV	Human Immunodeficiency Virus
KNBS	Kenya National Bureau of Statistics
NACADA	National Campaign against Alcohol and Drug Abuse
NARCOSTI	National Commission for Social Science, Technology and Innovation
SID	Society for International Development
SPSS	Statistical Package for the Social Sciences
SUD	Substance Use Disorders
UNODC	United Nations Office on Drugs and Crime
WHO	World Health Organization

DEFINITION OF TERMS

12-Steps program – A set of guiding principles used in treatment of ADU (Musyoka et al., 2016).

Alcohol – A drink containing ethanol used for purposes of intoxication (Caetano, Vaeth, & Canino, 2017).

Alcohol and Drug Use – Misuse of alcohol, prescription drugs and illegal drugs (Groenewald & Bhana, 2018).

Clients – People admitted in rehabilitation centres (Mathew, Regmi, & Lama, 2018).

Consumption trends – Drug use behaviours

Drug – A chemical substance used to cure, prevent or treat a disease (Ballester, Valero, Orte, & Amer, 2018).

Drug abuse – This refers to the excess use of drugs and psychoactive substances to create pleasurable feelings in the brain (NACADA, 2017).

Enabler – A person who helps maintain a behaviour in another (Haverfield, Theiss, & Leustek, 2016).

Family – A basic social unit of a society (Galvin, Braithwaite, & Bylund, 2015).

Family Cohesion –Emotional bonding or connection within the family (Guo et al., 2016).

Family structure – Organization of a family (Galvin et al., 2015).

Family system – Basic social units with a common ancestry extending to four generations (Guo, Slesnick, & Feng, 2016).

Family-related risk factors – Are risk factors that recovering clients are exposed to that are unique to the family such as family structure, sibling use, family transition and family environment (Marchi et al., 2017).

Lost child – A child who diverts attention to others (Haverfield, Theiss, & Leustek, 2016).

Mascot – A person who uses humour to deflate tension (Haverfield et al., 2016).

Parentified – playing the role of a parent (Haverfield et al., 2016).

Multiple drug/polysubstance use – Use of more than one drug at the same time (Kataja et al., 2019).

Rehabilitation programs – These are interventions geared towards restoring drug abuses from their dependence on drugs (Musyoka et al., 2016).

Scapegoat – A person who distracts family by becoming a problem to be dealt with (Lassister et al., 2015).

Substance Use Disorders – Mental disorders that are generated by ADA (American Psychiatric Association, 2013).

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CHAPTER ONE: INTRODUCTION AND BACKGROUND TO THE STUDY

Introduction

This chapter presents the background to the study, statement of the problem, the objectives of the study, the research questions, justification and significance of the study, scope of the study, assumptions, delimitations and limitations of the study, definitions of terms and the chapter summary.

Background to the Study

Alcohol and drug abuse (ADA) is the harmful and hazardous use of drugs and alcohol (Groenewald & Bhana, 2018). Repeated use of alcohol and other drugs leads to tolerance and dependence on the substance of choice (Wilkens & Foote, 2019). A person who has developed tolerance to any substance use may have compulsion to use the drug as well as an inability to control its use (Daley et al., 2018). The abused substances may be harmful to the wellbeing of the user. However, they persist in use despite its harmful effects on their personal obligations and social activities (Njati, 2016; Zipporrah et al., 2015). This problem of drug abuse is made worse by the camouflaging patterns of use, consumption devices, as well as availability and access to synthetic drugs (Miech et al., 2019).

ADA has become a common phenomenon for many families and people from all strata in society (Were et al., 2020). Recently, it has become a major concern for politicians, scientists and the general public (Kiambi, 2018). Globally, ADA has been a leading cause of preventable sicknesses and deaths (Maithya et al., 2015). Merz (2018) highlights that around 5% or one quarter of a billion of the global population was reported to have used drugs at least once in 2015 while 29.5 million of that adult population suffered from drug use disorders that required treatment. In 2016, 5.6% of people aged between 15-64 years had used drugs at least once and 31 million people

suffered from drug use disorders (Merz, 2018). The burden of disease from drug use consequently affects the family finances and family relationships.

Investigations conducted across the western world highlight the interplay between ADA and family cohesion as a current social issue, with reports in some countries such as Norway underscoring the central role of family support system (Birkeland et al., 2021). Family cohesion as a result of ADA is a concerning issue in the United States, with children considered as bearers of the greatest brunt of ADA in the family (Saladino et al., 2021). Family cohesion, however, has been reported as both a casualty of ADA and a protective factor in a cross-sectional study in Switzerland (Tsai et al., 2020). This was also demonstrated in Puerto Rico, Mexico, where an assessment of family cohesion and pride in relation to ADA demonstrated the bidirectional relationship between family cohesion and ADA (Caetano et al., 2017).

In the East African region, earlier studies singled out Uganda as having the highest ADA rates in the world (Abbo et al., 2016; Kalema & Vanderplasschen, 2015). Findings from a study conducted in Uganda by Kabwama et al. (2016) indicated that there was a high consumption of alcohol among the adults. It is also estimated that 10% of the population is suffering from alcohol related disorders. Another study also found out that both alcohol and drug use were common among the youths in fishing communities in Uganda (Kuteesa et al., 2019). A cross sectional home survey carried out with a sample of 2479 Rwandese youths revealed that ADA exists as a reality among the youth (Kanyoni et al., 2015). In Tanzania easy access to drugs has led to a widespread use of drugs among the youths in the whole country (Yusuph & Negret, 2016).

Current trends in ADA are presenting a major challenge to the Kenyan nation. A National Authority for the Campaign against Alcohol and Drug Abuse (NACADA, 2017) rapid situation assessment of drugs and substance abuse indicates that the situation in Kenya is made worse by easy availability, affordability and accessibility of alcohol, and drugs. The fact that introduction into drug consumption begins between the ages of 10-19 years poses the risk of increased drug problems in the future of the population. Early initiation to alcohol and drug use might lead to tolerance and dependence. This can be detrimental to family functioning in the long term. Family functioning is bound to be chaotic where both adults and the youth are using alcohol and drugs. Moreover, the presence of alcohol related disorders can compound family functioning (Galvin et al., 2015).

As the ADA problem continues to spread many families are left suffering from the effects it leaves behind. Use of alcohol and drugs has been associated with many social ills like violence and abuse among others that affect families (Guo et al., 2016). How family members respond to the presence of ADA in the family and how that in turn influences the stability of the family as a system needs to be understood. Understanding the influence of ADA and family cohesion on different family structures is vital for the proper formulation of policies and interventions that support affected family members (Galvin et al., 2015).

A family can be defined as a universal human system made up of two or more people who are related by birth, marriage or adoption, live together and are committed to each other (Goldberg et al., 2019). As members live together, there are various emotional transactional exchanges that take place in relationships to which families respond in different ways. What one family member does affect and in turn is affected by the others. As a result, no one person can be understood outside the context of the

family in which they live (Becvar & Becvar, 2017). Those who abuse alcohol and other substances are therefore affected and affect the families in which they live in one way or the other. Understanding how family cohesion is affected by such a phenomenon would inform choice of treatment planning and administration for families with ADA.

Family cohesion is the emotional bond that exists between family members. The presence of family cohesion may be a protective factor to mitigate for any changes that may affect the family stability (Raul et al., 2017). Conversely, lack of cohesion may mean that the family unit is unable to withstand the impact of alcohol and drugs being consumed by one member and therefore suffer disunity (Guo et al., 2016).

A research by Nyaga and Mwai (2016) on selected family factors for drug abuse among the youth in Kenya highlight that protective factors for ADA include quality parental relationships and involvement as well as healthy family boundaries where children are guided clearly on the expected social values. Children who live in poor environments, dysfunctional families, have easy access to alcohol and drugs and are under peer pressure are highly vulnerable to ADA. These factors coupled with poor law enforcement, weak policies and corruption as well as attitude and perception towards alcohol and drugs provide an enabling environment for ADA (Ahmad et al., 2015). This presents a possibility for increased conflicts in the family due to members who hold different perceptions and beliefs about ADA.

In Kenya, the menace of drug abuse is linked to increased crime rates, increased levels of poverty, and higher rates of HIV infections, poor academic performance, unrest in schools, injuries and other adverse health effects from toxicity (Mkuu et al., 2017). Women who abuse alcohol and drugs suffer from pregnancy

complications and also abdicate their caregiving role (Wangeci, 2016). Overdose of drugs has been known to cause deaths while sharing needles has increased HIV infections. Family violence, increased poverty, HIV infections and deaths resulting from ADA are likely to influence family stability (Merz, 2018).

A study by Ashford, Brown and Curtis (2019) on substance use and recovery indicated that people with ADA problems suffer from stigma because of labels that are used to describe them. While family members might have to fight the external factors of stigma by withdrawing from public participation, internally, the family system may suffer instability due to emotional cut-offs and enmeshment as a way of coping with ADA (Guo et al., 2016). This has consequent effects on family perception and responses to a person with ADA, family cohesion, as well as response to the need for treatment.

ADA impacts on family communication, finances, roles, rituals and social life which in turn affect the family cohesion (Lakew, 2016). It also affects families as well as communities (Diraditsile & Rasesigo, 2018). A study by Caetano et al. (2017) indicates that family cohesion acts as a protective factor against ADA. Understanding the influence of ADA on the family requires a systemic approach to the problem (Becvar & Becvar, 2017).

This study was undertaken in Kiambu County, Kenya. Kiambu County is one of the counties with the highest prevalence of alcohol and drug abuse in Kenya (Kiambi, 2018). The problem of alcohol and drug abuse in the county is so rife that in its 2019-2020 annual development plan, the county government purposed to reduce it and provide rehabilitation services (County Government of Kiambu, 2018).

Statement of the Problem

Consequences of ADA not only affect the consumer but also the family members (Guo et al., 2016). Poor academic performance of children (Muthoka & Mwenje, 2020; Nyaga & Mwai, 2016; Yusuph & Negret, 2016), increased HIV infection rates of spouses, conflict in the family, separation and financial problems are all problems associated to ADA that families often face (Laslett et al., 2015; Merz, 2018, 2018).

A lot of research has concentrated on effects of ADA on the adolescent population. Local studies (Kahuthia-Gathu et al., 2013; Kiambi, 2018; Mwangi, 2018, Njati, 2016; Nyaga & Mwai, 2016; Zipporrah et al., 2015) and have mostly concentrated on the causes of ADA from an individual perspective. Since a family is a system where interactions are bound to occur, it remains uncertain whether families understand how the recursive nature of family relationships can influence ADA behaviours and consequently family cohesion (Mathew et al., 2018).

Prior studies on ADA and family functioning in Kenya have focused on its impact on marital stability (Mbugua et al., 2016), participation in a child's education (Oyieno, 2018; Wangui et al., 2017). A gap therefore existed in understanding how ADA influences the family cohesion in Kenya.

Previous research by Kiambi (2018) in Kiambu County revealed a high prevalence of ADA and suggested that family cohesion was at risk; with recommendations that urgent evidence-based interventions are needed to mitigate ADA and its negative spillover effects on society. As a way of bridging the existing knowledge gap, this study examined the relationship between ADA and family cohesion and how this relationship is moderated by family-related risk factors and mediated by resulting changes and adaptations in family systems.

Purpose of the study

The purpose of this study was to establish the influence of ADA on family cohesion with a view to establish how this happens among families of recovering clients in selected rehabilitation programs in Kiambu County.

Objectives of the Study

The objectives of the study were as follows:

1. To establish ADA consumption trends among clients recovering from ADA in selected rehabilitation programs in Kiambu County.
2. To determine the state of family cohesion among the families of clients recovering from ADA in selected rehabilitation centres in Kiambu County.
3. To find out the relationship between ADA and family cohesion in the families of the clients recovering from ADA in selected rehabilitation centres in Kiambu County.
4. To examine the family risk and protective factors influencing the relationship between ADA and cohesion in families of clients recovering from ADA in selected rehabilitation centres in Kiambu County.
5. To evaluate the influence of changes and adaptations in family systems on the relationship between ADA and cohesion in families of clients recovering from ADA in selected rehabilitation centres in Kiambu County.

Research Questions

1. What are the ADA consumption trends among clients recovering from ADA in selected rehabilitation programs in Kiambu County?
2. What is the state of family cohesion among the families of clients recovering from ADA in selected rehabilitation centres in Kiambu County?

3. What is the relationship between ADA and family cohesion in the families of the clients recovering from ADA in rehabilitation centres in Kiambu County?
4. What are the family risk and protective factors that influence the relationship between ADA and the cohesion in families of clients recovering from ADA in selected rehabilitation centres in Kiambu County?
5. How do changes and adaptations in family systems influence the relationship between ADA and cohesion in families of clients recovering from ADA in selected rehabilitation centres in Kiambu County?

Assumptions of the Study

The assumption of this study was that ADA has an influence on family cohesion in families of clients recovering from ADA in selected rehabilitation centres in Kiambu County. It also assumed that family members of the clients in rehabilitation centres in Kiambu County play a role in contributing to ADA. The study further assumed that there exists a correlation between ADA and family cohesion. Lastly the study assumed that the family plays a role in the treatment process of one member who is suffering from ADA. Further assumptions were made that the views of the ADA families elicited were a true reflection of the family dynamics.

Justification/Study Rationale

Most treatment models for ADA focus on the individual and not the family as a system (Tsamparli & Frrokaj, 2016). Observations on treatment provided in some treatment centres in Kiambu County reveals that more attention is given to the person with ADA than the family as a unit. Further, most treatment programs administer the 12-steps program for the Alcoholics Anonymous and 12 steps program for the Narcotics Anonymous which focus mostly on the individual recovery. How ADA

affects the entire family unit and needs to be understood so that appropriate family inclusive interventions can be designed. It was important to carry out this study so that it can help spell out the impact of ADA on the family cohesion. This might in turn inform the choice of interventions to be used for ADA treatment.

Significance of the study

This study was anticipated to greatly benefit marriage and family therapists to develop awareness about the effects of ADA on the family members in general and to tailor make family therapy interventions for the entire family members. It might also help the relevant organizations and government departments to develop appropriate policies that can mitigate and support families affected by ADA. It might further be of benefit to family members of recovering patients who may apply recommendations resulting from the study towards a more cohesive family as they chart a path towards recovery for their member. The study might also be used as a reference material for the academic community who wish to advance knowledge on the area of ADA and family cohesion.

Scope of the study

The study was carried out in selected treatment centres in Kiambu County. These centres were drawn from the list of NACADA registered rehabilitation programs that are within Kiambu County. The participants in the study were drawn from the resident clients in the rehabilitation program as well as the centre administrators. These centres in Kiambu County have were selected because Kiambu County is close to Nairobi. County. Proximity to the city of Nairobi provided a possibility of different communities accessing the rehabilitation centres for treatment. This coupled with the fact that there are more rehabilitation centres that are registered

with NACADA in Kiambu County informed the reason for selection of the County to draw the study population from.

Limitations and Delimitations of the Study

Abuse of drugs and alcohol may have other effects on the user and the family members. However, this study only addressed the influence of ADA on family cohesion. Future research can be done to examine what other effects ADA has on the family.

Chapter summary

As the wildfire of ADA continues to ravage many countries, the trail of effects on individuals affected ends up in families where these individuals live. This problem is made worse by the fact that there is an entry of new drugs into the markets that have also come along with new ways of ingesting. Diseases and deaths from the excessive use of drugs and alcohol have added to the problem. The complex nature of the drug use problem has left governments baffled while at the same time, families are destabilized by the drug using family members.

This study sought to understand the different patterns of drug use, the family risk and protective factors, family response to treatment for a drug using family member as well as how ADA influences family cohesion. Understanding the influence of ADA on family cohesion might assist in helping in structuring family therapy treatment modalities for the whole family where a member is affected.

CHAPTER TWO: LITERATURE REVIEW

Introduction

This chapter covers literature review in line with the objectives of the study, the theoretical framework as well as the conceptual framework. The literature review is presented in five sections. The first section reviews literature on ADA consumption trends. The second section reviews literature on ADA in relation to family cohesion. The third section discusses family-related risk and protective factors. The fourth section reviews literature on changes and adaptations in family systems as a mediator between ADA and family cohesion. The fifth section explains the theoretical framework. The sixth section presents the conceptual framework.

Alcohol and Drug Abuse Consumption Trends

In spite of heavy legislation by nations and various arms of different bodies, ADA has continued to pose a great threat to economic and social development of many communities. There are many emerging consumption trends that continue to compound the fight against drugs. Drug production in some parts of the world as well as the complex supply chains that currently involve the internet and social media pose a great challenge to the fight against ADA (Merz, 2018). Understanding consumption trends in ADA might play a significant role in prevention efforts. However, such trends, where they exist in past empirical studies, have not been adequately contextualized, hence presenting a research gap.

Studies show that alcohol and drug users tend to use more than one drug, a practice referred to as multiple drug or polysubstance use. This behaviour is common among people with ADA. A study by Le et al. (2019) indicates that in Vietnam, those

who use heroin use it together with other drugs like amphetamines, marijuana and crystal methamphetamines for the purpose of accelerating excitement. Alcohol, tobacco, marijuana and Khat are the leading drugs abused in most African countries (Kumesa et al., 2015). At the same time, those on Methadone Maintenance Treatment (MMT) also report concurrent use of alcohol, heroin, opioids and smoking while still on treatment thus impacting on the long-term treatment outcomes. It remained to be understood how multiple drug use behaviours affect family cohesion in Kenya.

Multiple drug use is occasioned by availability in the same environments where alcohol is, as well as the need to use more than one drug to experience co-effects of more than one drug (Kataja et al., 2019). Different drug interactions can cause fatal consequences to the user sometimes leading to death. Ham et al. (2019) also state that high prevalence of multiple drug use is recorded among alcohol, marijuana and tobacco which when used from an early age are likely to lead to illicit drug use of different forms in the future. They also observe that those who use more than one drug pose a risk to their overall safety, wellbeing and mental health. Since families are systems, the effects on the individual are likely to affect the family members' mental and physical wellbeing. The present study tested this assumption through an empirical inquiry among rehab patients in Kiambu County.

A review of ADA in a few African countries indicates that ADA is a major challenge in the African continent and that there is general multiple drug use among many populations in Africa. A cross-sectional study conducted in Rift Valley University College in Ethiopia revealed alcohol prevalence was 35.6%, while Khat was 29.9%. Cigarette smoking was the lowest at 14.9% (Kumesa, et. al., 2015). In Namibia, a study conducted among men and women revealed that males who used alcohol had 2.57 change of smoking while women had 4.60 times higher chances. (He

et al., 2019). A prospective cohort study conducted in Tanzania indicated that 26.1% were positive for both alcohol and drugs with marijuana being the most used drug (Mundenga et al., 2019). However, these studies did not explore what implications the multiple drug use portended for family cohesion in these countries.

In Kenya, different studies conducted in different regions indicate a high prevalence, of ADA. Findings from a survey conducted by Chege et al. (2019) in selected rehabilitations programs in Mombasa County revealed that alcohol was the most commonly used substance. The choice of drug to use was determined by availability and affordability. Easy availability and affordability of alcohol and drugs is likely to lead to more use and tolerance in different population groups. Whereas the study was contextually relevant, the interaction between ADA and family cohesion was not demonstrated, hence presenting a conceptual gap.

A household survey by Kendagor, et al. (2018) on a nationwide representative sample revealed that there was a report on multiple drug use for those who had higher chances of heavy episodic drinking to also use tobacco. Multiple drug use was found to be a common phenomenon with shisha being used together with khat, tobacco products and alcohol in a study conducted in Eastleigh, Nairobi (Nyavanga, & Wafula, 2018). However, consequent behaviours from the different drug interaction and their impact on the family cohesion remain to be understood.

The biggest challenge in the fight against ADA is the camouflaging nature of the drugs in use. While ADA drug classification is well spelt out in DSM-5 (APA, 2013), new and unknown substances that are difficult to track continue to emerge with new names. This confounds not only the authorities but also the families of the users. The risk and protective factors in the family for ADA need to be understood. This

study therefore will aim to understand how family cohesion is affected by the presence of ADA, considering the different ADA consumption trends.

Relationship between Alcohol and Drug Abuse and Family Cohesion

A family is foundation from which our phenomenological world is formed. Family plays the fundamental role of socializing its members as well as formation of behaviours and attitudes of the members (Ballester et al., 2018; Galvin et al., 2015). The emotional connectedness of families moves vertically up to three or four generations while relationships with different members pass through transitions across the lifespan of the family lifecycle as outlined by McGoldrick et al. (2015).

A family is viewed as a system or organism whose members are interdependently connected in interpersonal relationships. Change in one family member therefore automatically affects the other members (Becvar & Becvar, 2017; Soloski & Berryhill, 2015).

In family systems with ADA, family functioning revolves around responses to ADA (Walsh, 2014). As a result, the behaviour of one family member has a ripple effect on all other members. In the face of change, the system reorganizes itself in a bid to attain homeostasis. The presence of ADA in the system therefore forces it to transform and accommodate the ensuing changes in the family.

In order for the system to continue functioning effectively, it needs to be flexible enough to allow transformation to take place as well as have communication skills that can enable members to communicate their needs effectively. Lack of flexibility and communication to accommodate change results to lack of family cohesion in the family. Whereas this revelation suggests the mechanism through

which ADA affects family cohesion, the discussion by Walsh (2014) did not explain the effect size, hence creating a methodological gap.

Family cohesion is defined as the emotional bond that family members have with one another (Caetano et al., 2017; Cano et al., 2018, Lardier Jr et al., 2018). It also refers to the ability of family members to offer emotional support for one another in times of need (Marchi et al., 2017). This construct has been found to intervene in various problem behaviours including ADA. However, how emotional support plays out among rehab patients has not been clarified in prior research, thus opening a contextual gap.

An evaluation of different studies (Cano et al., 2018; Ballester et al., 2018) argue that family cohesion can be a protective factor for ADA. Higher family cohesion has been associated with a lower occurrence of substance abuse (Sánchez-Queija et al., 2016). On the other hand, ADA in a family member may affect the functioning of the entire family (Guo et al., 2016). Various relationship dynamics have been found to characterize families that are affected by ADA. Such studies have conceptualized family cohesion as a causal variable rather than an outcome variable. Thus, it was necessary to re-conceptualize the path from ADA to family cohesion.

Further, another study by Guo et al. (2016), found that there was a relationship between adolescent prosocial behaviour, family relationships and family functioning. A review of several studies over a ten year period by Rowe (2012) revealed that higher levels of family cohesion contributed to a lower risk of ADA while high family conflicts elevated the chances for ADA as well as other associated mental health disorders. At the same time, the review indicated that improved family relationships contributed to a reduction in ADA. This is confirmed by findings from a cross sectional study conducted on a Hispanic population that examined the role of family

cohesion and support that revealed that there was a correlation between strong family cohesion, high levels of social support and the severity of alcohol use. This indicates that family cohesion also plays a key role in mitigating for ADA initiation for adolescents.

Daley et al. (2018) assert that families experience a great deal of emotional turmoil from anger, shame, helplessness, fear, anxiety and that may lead to depression and other mental disorders. When such emotions are present in a family, family functioning is likely to be affected. Affected family members (AFMs) may suffer from emotional health problems as well as financial problems as a result of caregiving activities (Groenewald & Bhana, 2018).

The quality of family relationships and emotional connectedness determine the initiation and consequent use of ADA in later years (Sánchez-Queija et al., 2016; Tsamparli & Frrokaj, 2016). Limited interaction among family members may happen as one family member gets involved in care giving roles for the drug abusing family member (Haverfield et al., 2016). A research conducted by Marchi et al. (2017) to evaluate and compare the family environment of two groups of ADA using Family Environment Scale (FES) and Addiction Severity Index 6th version (ASI-6) showed that families that had a member who abused crack cocaine experienced emotional flare ups, did not value keeping family appointments and sometimes experienced violent episodes. This study found out that those using crack cocaine only had less family cohesion that those using alcohol only. At the same time, those who chronically abused crack cocaine may be accorded very little family support. This shows that ADA plays a significant role in affecting family cohesion.

The presence of conflict in a family can cause huge disruptions in family functioning. Divorce and separation and child neglect are likely to result from alcohol

and drug using parents (Laslett et al., 2015). These findings suggest that family bonding is unlikely to happen where violence, abuse and neglect are present. The emotional wellbeing of the family members can be compromised by chronic violence and conflicts, separation, divorce and neglect of children. These occurrences can greatly hinder families from living in harmony.

Coping behaviours may be manifested in different roles and behaviors that family members engage in (Petra, 2020). Various roles may be assumed by family members in families with ADA. Family members may adopt compensatory behaviours that may work against healthy family interactions. Haverfield et al. (2016) found out that the adaptive roles perform the purpose of maintaining homeostasis in the system for continued normal functioning. Members therefore assume new adaptive roles and behaviours to moderate for ADA and to help them cope with the existing chaos generated by the presence of alcohol (McCann et al., 2017). The coping roles and behaviours acquired may become a hindrance to family cohesion. However, such suppositions have been backed up by limited empirical support, thus necessitating the present investigated.

Adaptive roles in alcohol using families may also be present in families of people using other drug types. Lassister et al., (2015) exposited five roles that are also discussed by Haverfield et al. (2016) who says that different family members may take different coping roles. An enabler protects the ADA person from facing consequences of their behaviours. A parentified child plays the role of a hero who constantly seeks approval while the lost child diverts attention from the abuser while forgoing their own emotional needs. The mascot plays the role of deflating tension through humour while the scapegoat distracts the family from the real problem by becoming a problem to be dealt with. When such different roles exist in a family, they

are likely to affect the individual's perception of family issues as well as the quality of interactions that can impact on family cohesion.

Codependency appears to be a common coping behaviour in families with ADA (Sarkar et al., 2016). Codependency works to strengthen the unwanted behaviour in the person with ADA problem while at the same time affecting the quality of life of the codependent person. This construct is characterized by enmeshed boundaries and a state of sacrificing personal needs so as to meet the needs of the other (Sarkar et. al., 2016). Family functioning is bound to be affected where one member spends their energy protecting and defending another who is in ADA. As each family member tries to cope with ADA, the family becomes divided and family cohesion is affected by the chaotic interactions.

Other findings in a study by Singh et al. (2019) also highlight that family members also apply different coping behaviours with a member who has ADA. Some family members apply assertive coping strategies by openly expressing their intolerance while others use supportive coping by helping the person with ADA to deter the person from further use. Other members opted to remain inactive and nonresponding to the ADA for lack of knowledge on how to react while still other family members decided to be avoidant. Such varied reactions to ADA in a family are likely to leave the members disagreeing on issues because their emotional states are polarized. This in turn impacts the family cohesion.

Communication dynamics in a family with ADA are likely to be affected by the adopted interactional styles. Communication may take either an aggressive form or a hushed form as family members try to cope. A literature review by Haverfield et al. (2016) in a research on characteristics of communication in families of alcoholics reveals that the family patterns of communication may be a reflection of the

difficulties experienced by the family system as the family members try to cope with the presence of ADA in the family. Findings indicated that 17% of those who lived in alcoholic families experienced aggressive communication, 13.7% experienced tense communication, 4.8% experienced secretive slandering, and 15.9% experienced protective communication, while 12.7 % experienced limited communication. Only 18.7% of the total sampled population experienced healthy communication in the families that had an alcoholic family member. Family cohesion can be difficult to achieve where effective communication is not possible.

Haverfield et al. (2016) also highlight that a few studies on family communication in families where ADA exists indicate that family members treat the topic on ADA as a taboo topic. This means that family members are prohibited from discussing ADA. Instead, they are encouraged to treat it as a family secret as a way of protecting the family interests. This communication behavior in ADA families is carried out to protect the entire family as well as to avoid distressing the person with ADA. Experience reveals that communication patterns may be characterized by anger, conflicts, withdrawal and heightened anxiety for the family members. The presence of ADA consequently disrupts the family cohesion by interfering with effective family communication.

Moderating Effects of Family Related Risk Factors

Those who abuse alcohol and drugs come from families. (Ballester et al., 2018) say that the family plays the double role of being a risk or protective factor for ADA. It is important therefore to understand the family risk and protective factors that lead an individual member of a family to abuse alcohol or drugs. Such an

understanding will help to clearly define the role of the family in contributing to ADA.

Parental modelling on drug use plays a big role in initiation into drug use. A very recent study by Schuler et al. (2019) found out that college students who thought that their parents used tobacco, alcohol and marijuana abused drugs. Further, fathers' smoking at home and in cars as well as mothers' smoking and having no prohibition to smoking at home were identified as risk factors in a study by O'Loughlin et al. (2017). Since parents are the models for their children's behaviours, they are likely to copy the drug use habits. Loss of moral authority to discipline in a parent who is using drugs may contribute to lack of cohesion in the family as such a parent cannot challenge ADA behaviours in the children.

ADA by a sibling or a parent influences the decision to use drugs in adolescence. Several different studies (Schuler, et el., 2019; El Kazdouh et al., 2018; Alhyas et al., 2015; Kandel et al., 2015; O'Loughlin, et al., 2017) found that when parents or siblings in a family abuse alcohol and drugs, they influence the decision to use drugs in adolescents. Imitation to cigarette smoking was also found to begin in childhood and late adolescent and posed a risk of nicotine dependence due to early initiation. Family therefore plays a major role in preventing early initiation to ADA.

Genetic factors also play a role in predisposition to ADA. Kandel et al. (2015) found out that there is a correlation between parental alcohol and drug use and genetic predisposition with adolescents who are initiated into drug use. The genetic composition of a parent shared with an adolescent may be a risk factor

The influence of sibling drug use on initiation and use of drugs on their brothers and sisters was stronger than that of parents, a probability attributed to sibling closeness in age (Tsamparli & Frrokaj, 2016; Schultz & Alpaslan, 2016;

Whiteman et al., 2016; Windle et al., 2017). Sibling effects were found to be more for same gender siblings who were close in age with older siblings most likely becoming a source of ADA. A study by Schultz and Alpaslan (2016) revealing the role of conspiracy of silence for non-drug using siblings over their drug abusing brothers and sisters contribute to accelerated ADA. The quality of relationships among siblings can either be a mitigating factor or a risk factor for initiation to drug use especially from older siblings (Tsamparli & Frrokaj, 2016). The conspiracy of silence among siblings is a serious risk of ADA. Family cohesion can be greatly impacted by the conspiracy of siblings in ADA.

An earlier study also indicated that there is a correlation between older and younger siblings alcohol use as indicated in a study by Whiteman et al., (2016). They found out that older siblings introduced alcohol to the younger through direct provision and also through the social networks. Sibling co-use and popularization of alcohol by older siblings were critical pathways to alcohol abuse. Introduction of ADA by older siblings might mean that all the younger siblings are exposed to ADA. This may affect the functioning of an entire family.

Swaim and Stanley (2016) in a study to determine family factors that influence drug use among American Indian families found out that children raised in two parent families had a lower likelihood of abusing marijuana over a lifetime and that there was more use of marijuana in single parent in those who had no parent living with them. This confirms that the presence of a parent and parental monitoring are protective factors. However, the same study highlights that family conflict increases the risk of current use of marijuana as well as the risk of lifetime use. Despite the presence of two parents in a family, where conflict arises, it overruns parental

monitoring. This in turn affects parental roles, parental control and supervision of children thus leaving them vulnerable to ADA.

Other environmental factors that impact the family members are likely to lead to ADA as highlighted in a study by Brown and Shillington (2016). Experiences of adversity like abuse, neglect, dysfunctional families that either divorce or separate, living in abusive family systems, loss and grief and any other traumatic experience in childhood are predictors of ADA. At the same time children who live with a caregiver who suffers from ADA due to misuse also exposes them to risk of initiation to ADA. Such children can get initiated to ADA as way of coping with the adversity in the family environment. The role of protective family relationships cannot be ignored as a protective factor for ADA.

Carter and McGoldrick (2005) posit that a family moves through different stages in the family life cycle. Each stage in the cycle has tasks to be negotiated. Smooth transitions leave the family stable and functional. However, inability to negotiate transitional challenges may lead to stagnation. Some family members may result into ADA to cope. Parenting styles and parental interaction with children seems to play a major role in preventing early initiation and use of drugs. Different studies (Penjor et al., 2019; Berge, 2015; Zuquetto et al. 2019) on parenting style, distress and problematic alcohol use indicate that there is a correlation between parental approaches, age of initiation into alcohol consumption as well as drinking levels in the later years.

Affectionate, warm and involved parents who engage in the activities of their children significantly lower the age of initiation as well as the levels of drinking in later years (Alhyas et al. 2015). Zuquetto et al. (2019) also found out that among all other parental behaviours, parenting style plays a major role in influencing adolescent

drinking habits. Closeness with children is a mitigating factor for ADA. This means that healthy family relationships play a role in prevention of ADA.

Parental supervision and parental knowledge, parenting style, spending quality time, parental role modelling and communication played a role in either mitigating for drug abuse or protecting adolescents from being involved in abusing drugs (Nyaga & Mwai , 2016; Wang et al., 2015). Østergaard et al. (2018) also found out that parental monitoring and family rules lowered the age at which the adolescents were initiated into alcohol and later progression into abuse. Parents who guide their children on life's issues, have knowledge about their problems and communicate effectively with them play a role in prevention of ADA.

Family bonds were identified in several studies as playing an important role in protecting families from ADA (Strunin et al., 2015; Villarreal et al., 2019; Wheeler et al., 2019). Strunin et al. (2015) in their study to examine the role of *familismo* among Mexican youths as a protective factor highlight that family members who remain committed to the family values and collective decision making as well as identifying with and remaining attached to the immediate and extended family systems were protected from initiation to ADA. Findings in this study also indicated that family connectedness and emotional support acted as protective factors for ADA.

At the same time, Wheeler et al. (2019) also confirmed the importance of family bonds and the role of socialization as the vehicle through which family norms are transmitted. This study also revealed that the presence of strong parental bonds, two parent family household and parental involvement acted as protective factors against nonmedical use of prescription opioids. Villarreal et al. (2019) in their study highlight the importance of family, loyalty to the family involvement, interpersonal relationships and emotional connection with family members as more important than

material and economic achievements. This underscores the critical role a family plays in mitigating for ADA.

El Kazdouh et al. (2018) found out that poor parenting, lack of parental supervision, lack of affection and emotional disconnect within the family were risk factors for ADA. Further, the study found out that children who were restricted and controlled by parents developed low self-esteem that led to ADA. Family beliefs that supported or disproved alcohol and drug use also acted as risk or protective factor for ADA patients.

The foregoing discussion indicates clearly that a family plays an important protective role for ADA. A family's emotional environment and connectedness or lack of it predisposes members to either get initiated into ADA or delay its onset. When family bonds are strong and the family structure is stable, there is assurance that the members are protected from ADA to a large extent. Families therefore play an important role in mitigating for ADA. Treatment plans for people with ADA should also include Affected Family Members (AFMS) so that the whole family is addressed.

Mediating Role of Changes and Adaptations in Family Systems

DSM 5, in APA (2013) outlines that ADA is responsible for the development of various substance use disorders (SUD) as well as substance induced disorders that lead to pathological behaviours in an individual. The pathological behaviours range from inability to control use of alcohol and drugs, inability to relate with others and failure to meet social responsibilities, engaging in practices that expose the user to risk in addition to development of tolerance levels and withdrawal behaviours (Crapanzano et al., 2019). A family living with a person who is unable to control the use of alcohol and drugs is likely to experience a lot of distress. How they adapt to

their reality and whether such adaptations played a mediatory role on family cohesion outcomes was the aim of the present research.

However, treatment for ADA presents a challenge to the family and governments. Experience with many people who have suffered from ADA shows that the decision to take treatment had to involve force or a plan in which the affected person was not involved by the other family members or friends. Daley et al. (2018) states that many people who have ADA and substance use disorder (SUD) do not receive treatment. Low percentages from the population of those affected turn out to seek treatment while many others perceive themselves as not needing treatment. Lawrence (2019) highlights that some governments have opted to use family members to regulate their loved ones not to use alcohol and drugs or to force them to take treatment directly or indirectly. This has a further potential of affecting family connectedness. It is important therefore to understand the role of family in the treatment process for ADA.

Family members of a person struggling with substance use disorders (SUD) often have to play care giver roles. This exposes them to anxiety and worry about the wellbeing of their loved one. At the same time, they may face financial, legal and social challenges like family violence that are generated by the ADA behaviours from their loved one. This further predisposes them to experience emotional, mental and physical health issues that might need treatment (Petra, 2020). This shows that there is a need to establish support for family members where ADA exists.

Children growing up in a family with parents with SUD are likely to suffer from behaviour problems and depression (Vilela et al., 2020). A spouse of a person afflicted by SUD is left to shoulder the financial burden of the family. This in turn can generate mental health problems as they try to cope with feelings of anger, shame and stress (Ólafsdóttir et al., 2020). As families struggle to cope with SUD behaviours,

they may become weary and affected. Family members therefore also need to be assessed and treated for any psychopathology.

Stigma is the most challenging problem that individuals and families with ADA encounter (Crapanzano et al., 2019; Wilkens & Foote, 2019). Married parents, women and single parents in ADA experience more stigma with women being worst hit (Stringer & Baker, 2018). Stigma for affected women may account for the fact that most rehabilitation centres admit more males than females for treatment. Stigma can be overtly enacted and can be internalized by the individual. It can be experienced from the society, healthcare workers, friends and workmates. Family members also use stigma to deter their loved one from ADA (Stringer & Baker, 2018). An individual may further lose self-esteem and the self-will to recover (Crapanzano et al., 2019). This can affect other family members and consequently affect treatment seeking behaviours and outcomes.

When a person with ADA dies from different SUD complications, the stigma the user experienced is likely to be transferred to the family members. Family members also may suffer from disenfranchised grief from the loss of their loved ones through ADA and SUD (Walter et al., 2017; Daley et al., 2018). Family members can be in a chronic state of grief that in turn can affect their emotional connectedness and general wellbeing. Family members may therefore need treatment to deal with issues of loss and grief to help them cope.

Help seeking behaviours can be influenced by various factors. Lack of awareness of the need to seek for help and where to get the help, experience of blame and shared stigma as well as labelling as being codependent for family members are factors that determine family involvement in seeking for help for their loved one (McCann & Lubman, 2018; Wilkens & Foote, 2019; Zewdu et al., 2019). Families use recursive triangulations as the caregiver seeks for assistance to help the person

who is affected by ADA from the extended family and friends (Patel et al., 2020). Lack of cooperation from family members can lead to disagreements and dysfunctional relationships further aggravating the ADU problems.

The National Protocol for Treatment of SUD in Kenya (2017) shows that the family members of a person in ADA should participate in the assessment process to provide vital information and at the recovery process to provide support. A study by Musyoka, et al. (2016) evaluating models of treatment used in rehabilitation centres in Kenya revealed that the 12-step program is the most widely used for ADA treatment. Since most treatment programs focus more on the individual process, the role of the family members in treatment for ADA is yet to be clearly spelt out. In the majority of cases, there seems to be a lack of tailor-made services that that are flexible to accommodate the interrelated family needs in the treatment process. This study seeks to understand the role of the family members in treatment.

A family can either sabotage the treatment process by failing to corporate or support the person in ADA to access treatment and sustain recovery after treatment. Goldberg et al. (2019) found out that the family plays an important role in providing support in the treatment and recovery process of a loved one. The perception that that ADA disorders are an individual rather than a relational concern as well as cost of treatment have hindered family involvement in treatment (Selbekk et al., 2018). However, there is a growing awareness of the need to involve families in the process of treatment (Selbekk et al., 2015). Treatment modalities that put into consideration the role of the family in treatment can impact on the family functioning, treatment outcomes as well as control chances of relapse. Family involvement in treatment of ADA disorders needs to be emphasized (Selbekk et al., 2018). Better treatment outcomes may be achieved if the family system is involved in the treatment process.

This will provide an opportunity for the recovery of all the family members from effects of ADA.

Treatment models used, societal perceptions about ADA, lack of awareness of availability of formal treatment opportunities and the family perception of ADA may play a role in influencing the family participation in treatment and recovery process. Lack of awareness of availability of formal treatment opportunities and the family perception of ADA may play a role in influencing the family participation in treatment and recovery process.

Theoretical Framework

The Circumplex Model of Marital and Family systems is the work of Olson et al. (1989). The theory holds that couples and families that are more balanced are likely to be more functional than those that experience systemic imbalance. The model which serves as a tool for diagnosing relational interactions within couple and family systems is based on three dimensions or concepts namely cohesion, flexibility and communication (Psychologicznych & Psychologicznego, 2015; Olson, et. al., 2019).

Family cohesion is measured against the ability of family members to bond, the relationship with friends, respect for family time, how much space they keep between each other, how different family members relate with each other, the decision making process as well as how recreational and leisure time are spent. This construct focuses on measuring the separateness and togetherness of the family system (Oslon et al., 1989).

Within the construct of cohesion, there are four levels of cohesion namely: disengaged, separated, connected and enmeshed. The model hypothesizes that when family members are able to maintain balanced levels of connection while at the same

time maintaining balance in separateness, they experience optimal functioning. Family members therefore value spending time separately while at the same time valuing emotional connection with family members. Conversely, families that are on the extreme end of the continuum of disengaged or enmeshed are said to be unbalanced and therefore pose problems for long term relationships (Olson, 2000).

The second dimension of the Circumplex model is marital and family flexibility. This construct focuses on the ability of a couple or family system to accommodate change in family leadership, family roles and rules as it takes place within the family life cycle as well as the capacity for families to remain stable through the change process (Becvar & Becvar, 2017). Flexibility has four measurements namely: rigid, structured, flexible and chaotic. The Circumplex model posits that families that maintain a balanced level of flexibility, are more democratic in their approach and as such create a conducive environment to function effectively. Rigid or chaotic family structures exhibit inability to accommodate change and lack negotiation skills (Olson, 2000; Pirutinsky & Kor, 2013).

Communication, the third and final dimension of the model, is considered the vehicle that facilitates movement in cohesion and flexibility. Olson (2000) and Pirutinsky and Kor (2013) also argue that communication skills within a family are measured by the capacity of the family to listen to each other, speak for oneself clearly, self-disclose, follow each other in conversations as well as remain respectful to each other. The focus of communication is to identify empathic responses in conversations as well as the communication skills of family members.

The Circumplex model that came into the limelight in 1979 was to serve as a bridge between, theory, practice and research in family therapy. This model which also has a research tool known as Family Adaptability and Cohesion Scale (FACES) has undergone various thorough revisions with the current version of FACES IV that

was introduced in 2015 (Psychologicznych, & Psychologicznego, 2015). It is empirically supported by extensive evaluations with over 1200 studies (Pirutinsky & Kor, 2013) and is still being reviewed and updated through empirical studies (Olson, Waldvogel, & Schlieff, 2019).

The Circumplex model was relevant to this study because of various reasons. First, a family is a system that has different members who interact together in different ways. Introduction of any change is bound to affect the system's homeostasis. The system's cohesion may be affected as the system tries to cope with the introduced change through ADA behaviours. At the same time, the introduced change through ADA may cause family members to either fight it back or become accommodating to the problem. Different feelings and reactions that characterize the response to ADA in non-using family members may impact on the family communication processes.

The concepts in the Circumplex model provided a basis for investigating the levels of family cohesion in families with ADA. The dimension of flexibility were used as a theoretical lens to make sense of the impact of ADA on family cohesion through the family system's ability to accommodate change in family leadership, family roles and rules as well as the capacity for families to remain stable through the change process. The dimension of communication was used as the mechanism that explains family cohesion in the wake of ADA.

Conceptual Framework

The theoretical concepts representing the inter-relationships between ADA and family cohesion are presented in Figure 2.1. The figure presents alcohol and drug abuse as the independent variable, family-related risk factors as the moderating variables, changes and adaptation in family systems as the mediating variables and

family cohesion as the independent variable. Drug and alcohol abuse is indicated by frequency, severity, concurrency and type. Change and adaptations in family systems is represented by changes in communication, leadership, roles, rules and family response. Family related risk and protective factors include parental modelling, sibling use, family transition, family structure, and environment. Family cohesion is represented by emotional bond, relationship with friends, family time, and family recreation.

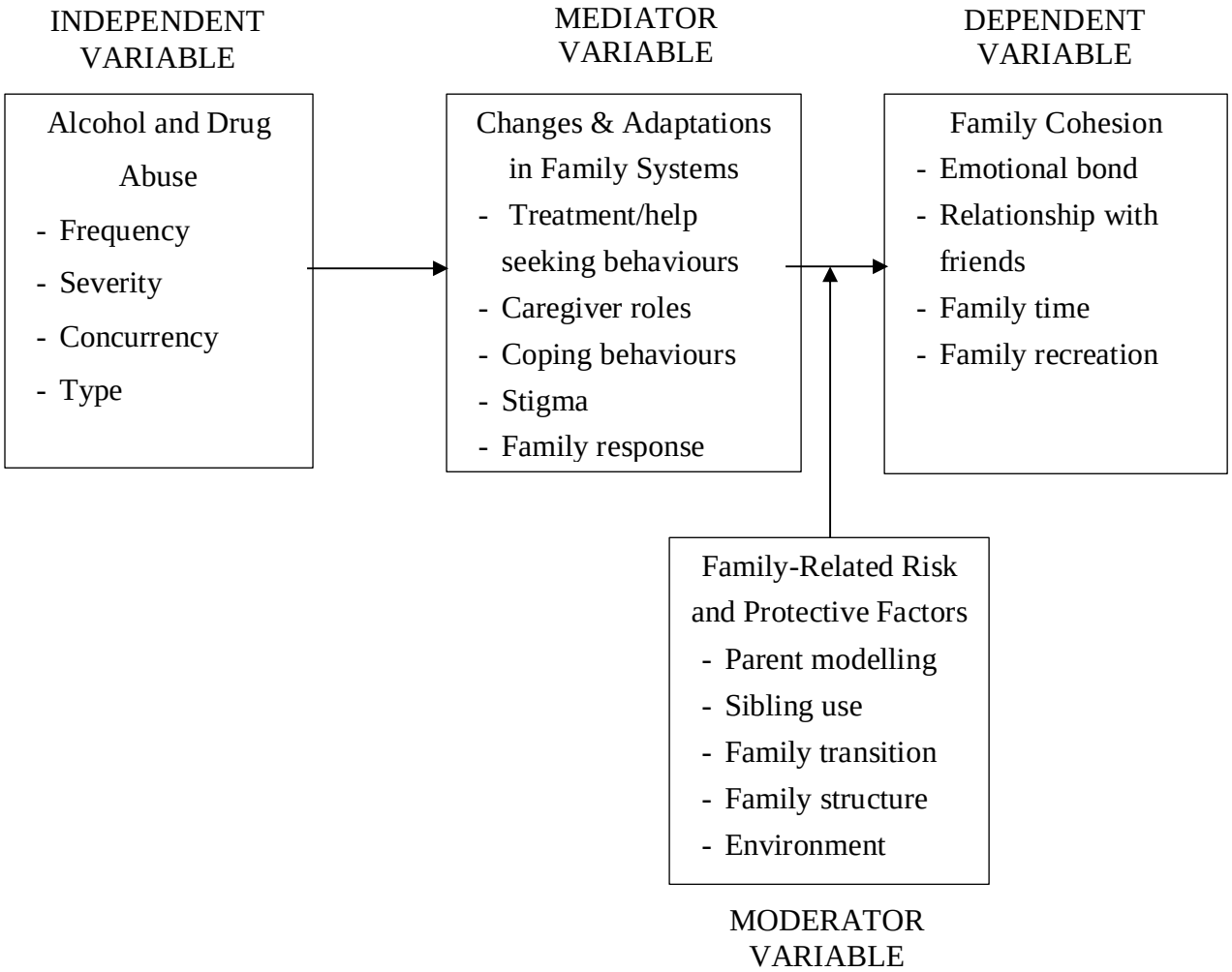

Figure 2.1 Conceptual Framework

Chapter Summary

The literature review has shown that ADA is a reality that many families have to live with. It has also indicated that those who use alcohol and drugs have been found to use more than one drug at the same time. This is done so that the user can counter the effects of one drug or increase the effects of a drug already used. The literature has discussed many reasons that cause individuals in a family result to ADA. Findings from past studies suggest that families that have parents or siblings who use alcohol drugs, family conflict and violence, divorce and separation are factors that predispose family members into ADA. However, families where parents are involved, communicative, and caring for their children play a great role in mitigating for early initiation to ADA. Although existing knowledge provide useful pointers for theorizing ADA and its effect on the family, the subject of family cohesion has received relatively limited scholarly attention, thus justifying the current study. In the next chapter, the methodology to be used is described.

CHAPTER THREE: RESEARCH METHODOLOGY

Introduction

This chapter cover the research design, population, study location, target population, sample and sampling techniques, research instruments, piloting the research instruments, reliability and validity of the research tools, data collecting procedures, data analysis, ethical considerations and the chapter summary.

Research Design

A research design is a plan or roadmap for the study. Kamara (2019) highlights that a research design is an organized plan that outlines the broad research procedure and fundamental features of the research work to be carried out. The research design is the methodology applied to conduct the study. It encompasses data collection methods, statistical and analytical techniques used to carry out the study (Denscombe, 2014). This study used a correlational research design. This research design facilitates the establishment of the existence and strength of a relationship or association between study variables using quantitative methods of measurement and analysis (Apuke, 2017). This design was suitable for this study because it aided in the determination of the relationship between ADA and family cohesion.

Study Locale

The study was carried out in Kiambu County which borders Nairobi County to the south and occupies an area of 2,543.5 km^2 (Kenya National Bureau of Statistics (KNBS) and Society for International Development (SID, 2013). The actual location of Kiambu County on the map of Kenya is shown in Appendix VI.

The study was carried out in all the ten centres that were willing to participate in the study and that were registered with NACADA in Kiambu County. Rehabilitation centres within Kiambu County were selected because it had an overarching program of alcohol and drug abuse control and rehabilitation in its integrated development plan for the period 2018-2022 (County Government of Kiambu, 2018).

Study Population

According to Denscombe (2014), a study population is an entire group of objects or events possessing similar observable characteristics. The population for this study was families affected by an ADA using member. The target population refers to the group of people, subjects or items to which results can be generalized. The target population of this study was drawn from all clients admitted in NACADA registered rehabilitation centres within Kiambu County. From the NACADA office records, there were 13 registered centres in Kiambu County, ten of which were willing to cooperate in the study and which constituted the sampling frame. The records obtained from ten of the rehabilitation centres that were spread out within different parts of Kiambu County indicated that there were 360 clients and ten (10) centre administrators who formed the accessible population of this study. In addition, a family representative from each centre was selected to participate in the study. Table 3.1 presents the population distribution.

Table 3.1: *Population Distribution*

No	Name of Centre	No of Males	No of Females	Total both Gender	Percent
1	The Raphaelites	32	-	32	8.77%
2	Teen challenge	31	11	42	10.53%
3	Wonder Peace Rehabilitation Centre	32	-	32	8.77%
4	Blessed Talbot	30	-	30	7.89%
5	Asumbi Treatment Centre	34	8	42	10.53%
6	Care-tech Medical & Rehabilitation Centre	48	9	57	14.91%
7	Dove International treatment and training Centre	35	1	36	12.28%
8	Thika Counselling Home	22	-	22	6.14%
9	Sober Living and Recovery	22	-	22	6.14%
10	The Retreat	44	1	45	11.40%
	Centre Administrators	10		10	2.63%
	TOTAL	340	30	370	100.00%

Sample Size

A sample is a small representative number of subjects or members that is drawn from the accessible population (Denscombe, 2014). The sample for this study was drawn from all the ten NACADA accredited rehabilitation centres in Kiambu County that had a total population of 360 clients. In addition, centre managers and representatives of family members who were considered key informants were purposively selected to participate in the study. The sample for the study was drawn from the sampling frame that was made up of 10 out of the 13 NACADA registered rehabilitation programs that were willing to participate in the study and centre managers. The sample included family representatives who were selected from the list of all the participants in the study.

This study used stratified random sampling to select 30% of the participants from a target population of 360 clients as guided by Mugenda and Mugenda (2003). Purposive sampling was used to select 10 center managers. The distribution of the accessible population as well as the distribution of the sample size from each centre is shown in the Table 3.2 below.

Table 3.2: *Sample Size Distribution*

NO	NAME OF CENTRE	NO OF MALES	MALES SAMPLE (30%)	NO OF FEMALES	FEMALES SAMPLE (30%)	TOTAL BOTH GENDER	TOTAL SAMPLE BOTH GENDER	TOTAL SAMPLE %
1	The Raphaelites	32	10	-	0	32	10	8.77%
2	Teen challenge	31	9	11	3	42	12	10.53%
3	Wonder Peace Rehabilitation Centre	32	10	-	0	32	10	8.77%
4	Blessed Talbot	30	9	-	0	30	9	7.89%
5	Asumbi Treatment Centre	34	10	8	2	42	12	10.53%
6	Care-tech Medical & Rehabilitation Centre	48	14	9	3	57	17	14.91%
7	Dove International treatment and training Centre	35	11	1	0	36	11	12.28%
8	Thika Counselling Home	22	7	-	0	22	7	6.14%
9	Sober Living and Recovery	22	7	-	0	22	7	6.14%
10	The Retreat	44	13	1	0	45	13	11.40%
11	Centre Administrators					10	3	2.63%
12	Family Representatives					10	3	2.63%
	TOTAL	330	100	30	8	380	114	100.00%

Sampling Technique

A sampling technique or sample design is the method used to select the participants for the study from the population to be studied (Creswell, 2014). Sampling allows the researcher to obtain the subjects to participate in the study without bias so that they can be representative of the study population. In this study, a stratified sample of the participants was drawn from selected rehabilitation centres in Kiambu County. The actual sample cases for clients, centre managers and family representatives was determined through purposive sampling method. However, only clients who had been in the treatment program for more than one month were allowed to participate in the study. This is because those who had been in the program for more than a month were assumed to have attained a level of recovery that could help them give informed consent to participate in the study. To select the participants to be included in the sample, their admission numbers were used. For each rehabilitation center, the population of clients was first divided by gender and then a random sample as generated using Excel Software. Clients with corresponding registration numbers were then recruited. The centers were also assigned code numbers, which were subjected through the same process to determine the centers from which to recruit center managers and family representatives.

Research Instruments

Research instruments are the tools that are used to collect primary data for the study. Walliman (2017) and Creswell (2017) highlights different research instruments that can be used as tools to collect primary data. This descriptive study was carried out using semi-structured questionnaires and interviews. The sample population

responded to some structured questions that were aimed at establishing the consumption trends of ADA, examine the family risk and protective factors, to find out the role of the family in treatment of ADA and the relationship between ADA and family cohesion.

The questionnaires were divided into three sections. Section A provided biodata information. Section B provided information that evaluated the consumption trends while Section C focused on family risk and protective factors. Further, section D focused on changes and adaptation in family systems and section E on state of family cohesion. Interview guide was used to collect qualitative data. This targeted treatment program managers and family representatives.

Pilot Testing

Mugenda and Mugenda (2003) states that before the study is carried out it is recommended that the research tools be pre-tested using a selected sample of between 1% and 10% of the sample size. The pretesting should be carried out in a sample that has similar characteristics to the actual sample so as to test for relevance of the research tools in the projected study.

The research tools for this study were subjected to a pilot study to pretest their suitability for use with the population. This was done after obtaining permission documents to carry out research from the relevant institutions. The pilot study was undertaken within Kiambu County in the centre that gave consent. The questionnaires were given to 10 clients in the centre and an interview conducted with the centre administrator as well as the family representative of the center. This helped in establishing the relevance of the questions for the study. The questionnaires were however excluded from the final sample.

Instrument Reliability and Validity

Validity of the data obtained from the accuracy of the final outcome are key factors (Creswell, 2014). According to Mugenda and Mugenda (2003), instruments should be tested to measure the degree to which they can give consistent data if used in other similar trials and whether the results obtained can be accurate. This testing should be carried out prior to the main study. The reliability of the research instruments was also tested to ensure that during the actual research process, consistent data was achieved. Validity was ascertained by seeking the expert opinion of the supervisors while reliability was determined through Cronbach's alpha correlation coefficient. A summary of the results of the reliability test is presented the table 3.3.

Table 3.3: *Reliability Analysis*

Variable	Cronbach's Alpha[a]	N of items
Alcohol and Drug Abuse	.085	4
Family Related and Protective Risk Factors	.533	7
Change and Adaptation	.717	7
Family Cohesion	.829	11

Table 3.3 shows that the alpha coefficients for the construct "Family Cohesion" (α=.829, n=11) and "Change and Adaptation" (α=.717, n=7) fulfilled the reliability requirement of α=≥.7. Therefore, all their items were retained. However, "Alcohol and Drug Abuse" items (α=.085, n=4) violated reliability model assumptions potentially due to wrong coding. Thus, a Likert scale was created for the items to achieve consistency. The coefficient for "Family Related Risk and Protective Factors" (α=.533, n=7) also failed to meet the recommended reliability threshold of α=≥.7. An examination of the Item-Total Statistics (Appendix V) revealed that the reliability

requirement would be met if one item (we have regular conflicts in our family) was deleted (α=.702). Thus, item deletion was effected accordingly.

Data Collecting Procedures

Before going to the field, data collecting procedures started by obtaining a letter from PAC University School of Graduate Studies. Further, the researcher applied for a research permit from the National Commission for Science, Technology and Innovation (NACOSTI) to go to the field to collect data. Consent was also obtained from the rehabilitation administrators to collect data from their centres. Further consent was obtained from the clients who participated in the study before the tools were administered. Primary data was collected through the use of questionnaires and interviews. The questionnaires and interviews were physically administered to the respondents by meeting them face to face. The researcher then conducted interviews with the selected center managers and family representatives within their respective centers. At each center, a register and contact list of all clients admitted at the center was obtained from the admissions office. The researcher then located the target participants' random numbers to their admission numbers to identify their names and phone numbers. They were then invited to the interview room by phone and introduced to the study. Their informed consent was obtained before giving them the questionnaires to fill. Only those who gave consent participated. Participants who needed assistance filling the questionnaire were assisted. This process also allowed the researcher to clarify any question or statement and, where necessary, translated the questions in Kiswahili for those who found it difficult communicating in English.

Data Analysis

Data analysis is the process involved in organizing the raw data that may be difficult to understand into processed information that can be clearly understood. As outlined by Denscombe (2014), that the raw data received were subjected to numerical coding that represents measurements of the variables in the study. The data from the questionnaires were analyzed using descriptive and inferential statistics with the aid of SPSS version 25 and presented using frequency of distribution using visual aids like charts and bar graphs. Moderated regression modelling was then used to draw inferences about the relationship between the study variables. Qualitative data was analyzed using thematic analysis procedure. This entailed generation of theme codes and undertaking thick description of the responses, supporting the interpretation with verbatim excerpts. These were then discussed and compared with quantitative data as well as theoretical and empirical literature.

Ethical Considerations

Honesty in the researcher is a key not only to validate integrity on the part of the researcher but also on ensuring that the results are credible (Walliman, 2017). In this study, the researcher therefore observed honesty in the research process including ensuring that the work carried out was authentic and not plagiarized. Further, the participants were accorded respect and allowed the autonomy to decide to participate or not. Confidentiality was observed in handling the information from the participants as well as in storage and disposal of the study instruments.

In line with the ethical guidelines outlined in Corey, Corey, and Callanan (2011), the participants will also be given available and necessary information about the study that would help them to make informed consent on whether to participate in the research process or not. This ensured that clients were free to make a choice to

participate in the study before engaging them. This ensured that they made a choice to participate in the study out of their own volition. Those who consented were given informed consent form to sign. After interview session, where necessary, debriefing was done to mitigate any psychological harm that may have been triggered by the research. The same treatment was accorded to participants involved through questionnaire method.

Data protection measures were taken to ensure the integrity of the data collected as well as to further protect the privacy of research participants. As part of this process, the data associated with each center was encrypted using codes known only to the researcher in order to eliminate traceability of findings to a specific center. Electronic data files will be password protected while hard copy data will be kept under lock and key.

Chapter Summary

This study will be an exploratory survey whose study population is drawn from ten of the 13 NACADA registered rehabilitation programs in Kiambu County from which the sample with the required characteristics for the study is drawn. The sample is determined using probability sampling. Simple random sampling will be used to draw the centres to participate in the study as well as the study participants. The tools to collect data for this study will be two different structured questionnaires. One will be used by the clients and the other by the centre administrators.

Data analysis will be done using descriptive statistics as well as inferential statistics of correlational coefficient. In carrying out the study, ethical standards will be ensured. The study participants will be respected and no harm will be done to them. The researcher will also ensure honest practice to validate the results as well as the integrity of the researcher.

CHAPTER FOUR: RESULTS AND DISCUSSIONS

Introduction

This chapter presents the results and discussions of the study. The chapter commences with a descriptive analysis of the response rate and demographic profile of the respondents. The remainder of the sections are presented according to the specific objectives of the study. Thus, the second section analyzes ADA consumption trends among clients recovering from ADA in selected rehabilitation programs in Kiambu County. The third section presents findings with regards to the state of family cohesion among the families of clients recovering from ADA in selected rehabilitation centres in Kiambu County. The fourth section analyzes and discusses the relationship between ADA and family cohesion in the families of the clients recovering from ADA in selected rehabilitation centres in Kiambu County. The fifth section entails results and discussion of family risk and protective factors moderating the influence of ADA on the cohesion in families of clients recovering from ADA in selected rehabilitation centres in Kiambu County. The final section analyzes the mediating role of changes and adaptations in family systems on the influence of ADA on cohesion in families of clients recovering from ADA in selected rehabilitation centres in Kiambu County.

Response Rate and Demographic Profile of Respondents

This section presents the response rate and analyzes the demographic profile of the research participants. The response rate is displayed in Table 4.1 while Table 4.2 presents the descriptive analysis of demographic characteristics of respondents. Table 4.1 shows that out of the 114 research participants targeted, an aggregate response rate of 87 (76%) was obtained while non-respondents were 27(22%). This comprised of 82 ADA rehab clients, 3 center managers and 2 family representatives.

In total, there were 87 participants in the study. The obtained response rate was considered adequate for analysis in line with Finchman's (2008) guideline that a response rate higher than 60 percent is sufficient.

Table 4.1: *Response Rate*

Respondent category		Frequency	Percent
ADA rehab clients	Respondents	82	76%
	Non-respondents	26	24%
Center managers	Respondents	3	100%
	Non-respondents	0	0%
Family representatives	Respondents	2	67%
	Non-respondents	1	33%
Total	Respondents	87	76%
	Non-respondents	27	24%

The distribution of respondents by respective demographic variables is presented in Table 4.2. The table shows that majority of the responding ADA rehab clients were male (79.3%, n=65), aged 26-35 years (42.7%, n=35), single-never married (50.0%, n=41), attained tertiary level of education (79.2%, n=65), were raised up by both biological parents (55.7%, n=44), had no children (51.2%, n=40), were either the first (30.9%, n=26) or second born (28.4%, n=23). These results suggest that ADA rehab patients in the County were single, male, well-educated young adults. These results were corroborated by Center managers and family representatives who identified age 26-35 years as the age group most affected by ADA. This finding is consistent with several studies across East Africa (Tanzania, Rwanda and Uganda) which identified the youth as the most affected age (Kanyoni et al., 2015; Kuteesa et al., 2019; Yusuph & Negret, 2016).

Table 4.2: *Distribution of respondents by demographic characteristics*

Demographic Variable	Response	Frequency	Percent
Gender	Male	65	79.3%
	Female	17	20.7%
	Total	82	100.0%
Age group	Below 25 years	20	24.4%
	26-35 years	35	42.7%
	36-45 years	20	24.4%
	46-55 years	6	7.3%
	Above 55	1	1.2%
	Total	82	100.0%
Current relationship status	Single-never married	41	50.0%
	Single-divorced	3	3.7%
	Married	24	29.3%
	Living together	3	3.7%
	Separated	11	13.4%
	Total	82	100.0%
Level of education	Primary education	3	3.7%
	Secondary education	14	17.1%
	College education	32	39.0%
	University education	33	40.2%
	Total	82	100.0%
Family background	Two parent family (biological)	44	55.7%
	Two parent-step family	7	8.9%
	Polygamous family	10	12.7%
	Single parent family (never married)	2	2.5%
	Single family separated)	8	10.1%
	Single parent family	1	1.3%
	Widowed/widower	7	8.9%
	Total	79	100.0%
Do you have children?	Yes	40	48.8%
	No	42	51.2%
	Total	82	100.0%
What is your birth position in the family?	1st born	26	30.9%
	2nd born	23	28.4%
	3rd born	9	11.1%
	4th born	7	8.6%
	5th born	2	2.5%
	Last born	15	18.5%
	Total	82	100.0%

ADA Consumption Trends among Clients Recovering from ADA

The first objective of the study sought to establish ADA consumption trends among clients recovering from ADA in selected rehabilitation programs in Kiambu County. This section presents findings on various dimensions of ADA usage trends such drug choice, as source of influence, years of usage, frequency of usage, family background of usage and ADA severity.

Choice of Drug

The distribution of respondents by choice of drug is presented in Figure 4.2.

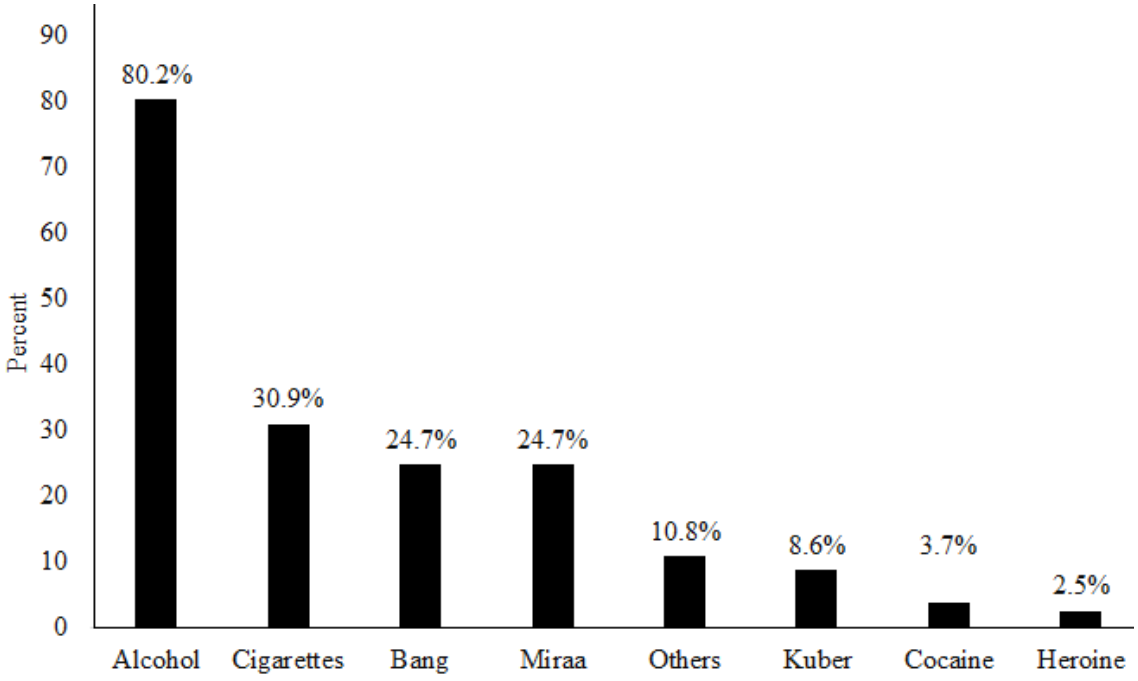

Figure 4.1: *Respondents' choice of drug*

Figure 4.1 shows that alcohol was the main drug of choice for ADA patients (80.2%, n=66), followed by cigarettes (30.9%, n=25), bang (24.7%, n=20) and khat (24.7%, n=20). The figure shows that 10.8% (n=9) of the respondents used other drugs while the least used drugs were heroin (2.5%, n=2), cocaine (3.7%, n=3) and kuber (8.6%, n=7). The study established that most of these drugs had other names.

For instance, alcohol was also referred to as beer, booze, changaa, busaa, tei, kibao or keroro. Alcohol was affirmed by most family representatives and center managers as the most predominant choice of drugs among rehab clients. This finding agrees with the observation by Kumesa et al. (2015) that alcohol, tobacco, marijuana and khat are the leading drugs abused in most African countries. Respondents were further asked whether there were other drugs they use together with their drug of choice. Results are displayed in figure 4.2.

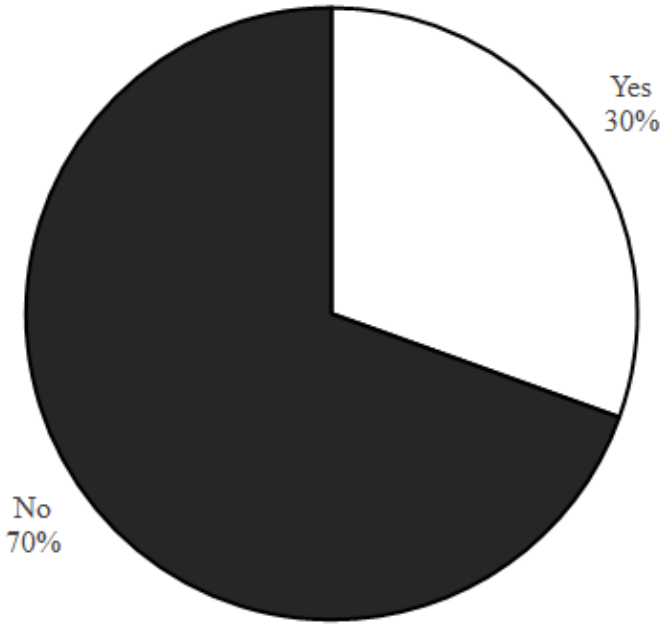

Figure 4.2: *Combination of multiple drugs*

As shown in figure 4.2, 30% (25) of the respondents said 'Yes' and 70% (57) of the respondents said 'No'. Most of the respondents who said 'Yes' said they used alcohol together with cigarettes and/or khat. This was corroborated by responses from center managers and family representatives who concurred that some of the rehab clients used other drugs together with their drug of choice. This finding concurs with current trends as observed by WHO (2018) who noted that it is not uncommon to find

those who use either alcohol or other drug types consuming a combination of different drugs with a view to build on the effects of the first, to counteract the effects of one substance or to produce a different desired effect. Similar trends have been reported in Vietnam by Le et al. (2019) who found that those who use drugs combine two or more to accelerate excitement. The same results have been documented in studies conducted by Ham et al. (2019) and Kendagor, et al. (2018) which found that there was a growing prevalence of multiple drug use for those who had higher chances of heavy episodic drinking to also use tobacco.

Source of Influence of Drug Use

The distribution of respondents by source of influence of alcohol and drugs is shown in Figure 4.3.

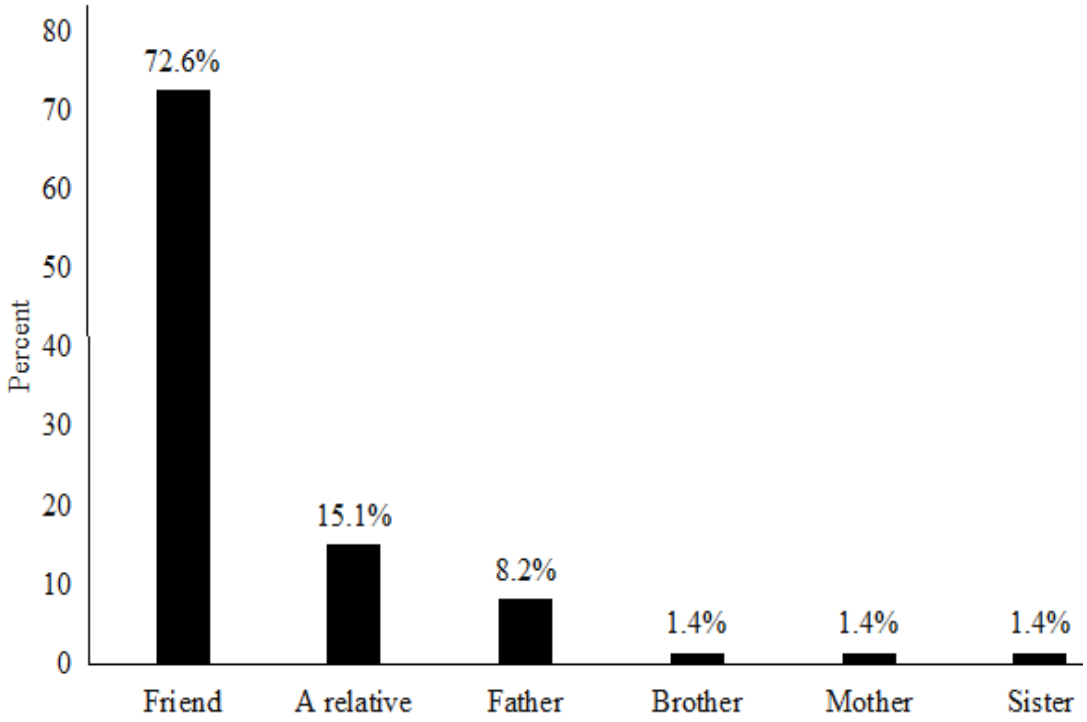

Figure 4.3: *Source of Influence towards ADA*

Figure 4.3 indicates that 72.6% (n=60) of the respondents were introduced to ADA by friends, 15.1% (n=12) were influenced by a relative and 8.2% (n=7) of the respondents were influenced by their father. The figure further indicates that the least source of influence were brother (1.4%, n=1), mother (1.4%, n=1) or sister (1.4%, n=1). The results suggests that majority of the ADA clients were initiated to drugs and substance use by peers rather than by relatives. This finding agrees with the results of a study by Nyaga and Mwai, (2016) in Kenya which found that individuals who succumb to peer pressure are highly vulnerable to ADA. This means that negative peer influence was a risk factor.

Years of ADA Usage

Respondents were asked how long they had used alcohol and drugs. The findings are presented in Figure 4.4.

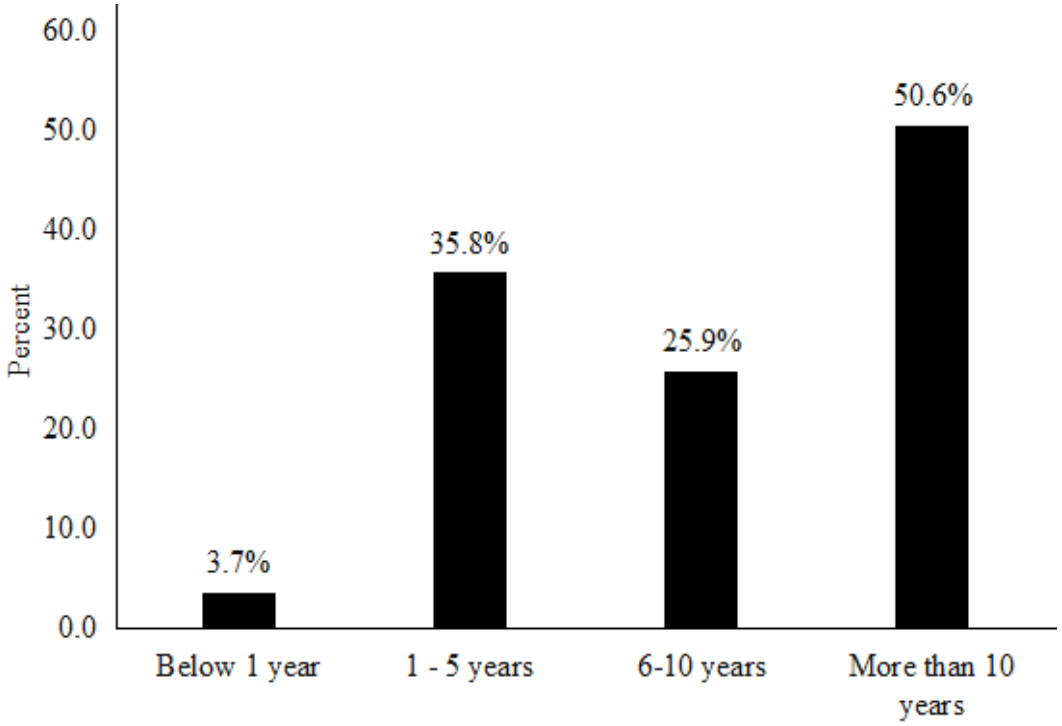

Figure 4.4: *Years of ADA Usage*

Figure 4.4 shows that 50.6% (n=41) of the respondents had used substance for more than 10 years, 35.8% (n=29) of the respondents had used alcohol and drugs for between 1 to 5 years, 25.9% (n=21) of the respondents had been exposed to alcohol and drugs for 6-10 years whereas 3.7% (n=3) of the respondents had used alcohol and drugs for less than 1 year. Therefore, most of the respondents had used alcohol and drugs for over 10 years, suggesting that they had been initiated into alcohol and substance use in their early years in life. This finding is consistent with a research report by the United Nations Office on Drugs and Crime (2018) which revealed that most ADA patients get initiated into ADA as early as teenage.

Frequency of Drug and Substance Use

The distribution of respondents by the frequency of ADA use is presented in figure 4.5.

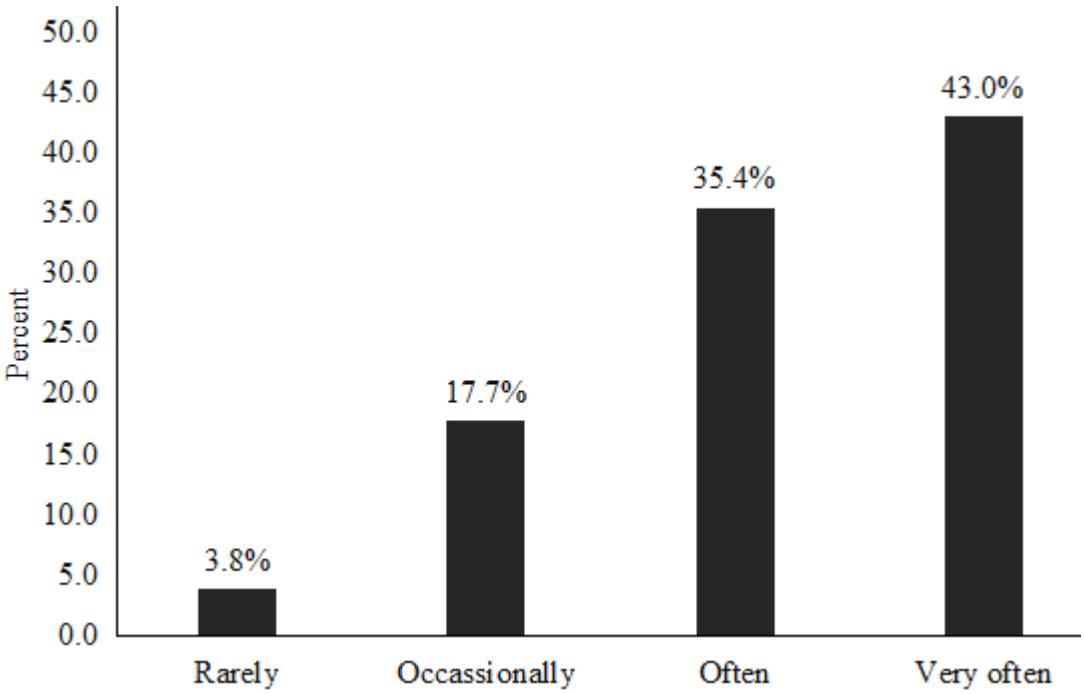

Figure 4.5: *Frequency of Drug and Substance Use*

Figure 4.5 shows that 43.0% (n=35) of the respondents used substance very often, 35.4% (n=29) used it often whereas 17.7% (n=15) if the respondents used it occasionally and 3.8% (n=3) used it rarely. The results suggest that respondents frequently used drug and substance. This is an indication that most of the respondents were yet to be completely rehabilitate from drug and substance abuse. This finding is consistent with the observation in past empirical research that rehab clients are at different levels of recovery (Chege et al., 2019).

Severity of ADA

Severity of ADA was assessed by evaluating withdrawal symptom whereby respondents were asked how they felt whenever they stopped using the drug. Figure 4.6 shows the findings.

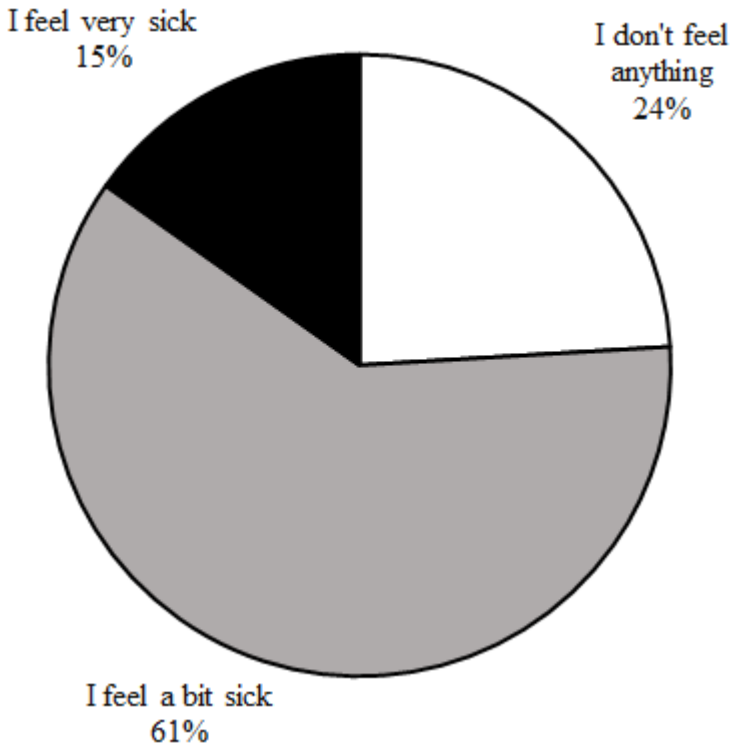

Figure 4.6: *How respondents felt after using Alcohol and Drugs*

Figure 4.6 indicates that majority of the respondents felt sick whereby 61% (n=50) felt a bit sick and 15% (n=12) felt very sick. However, 24% (n=20) of the respondents did not feel anything. The finding suggests that ADA was severe among respondents as symbolized by feeling of sickness which is a withdrawal symptom. This is in line with the DSM 5 of APA (2013) which associated ADA severity with withdrawal behaviours (Crapanzano et al., 2019).

Incidence of ADA in the Family

Respondents were asked to indicate who else used drug and alcohol in the family. Figure 4.7 presents the findings.

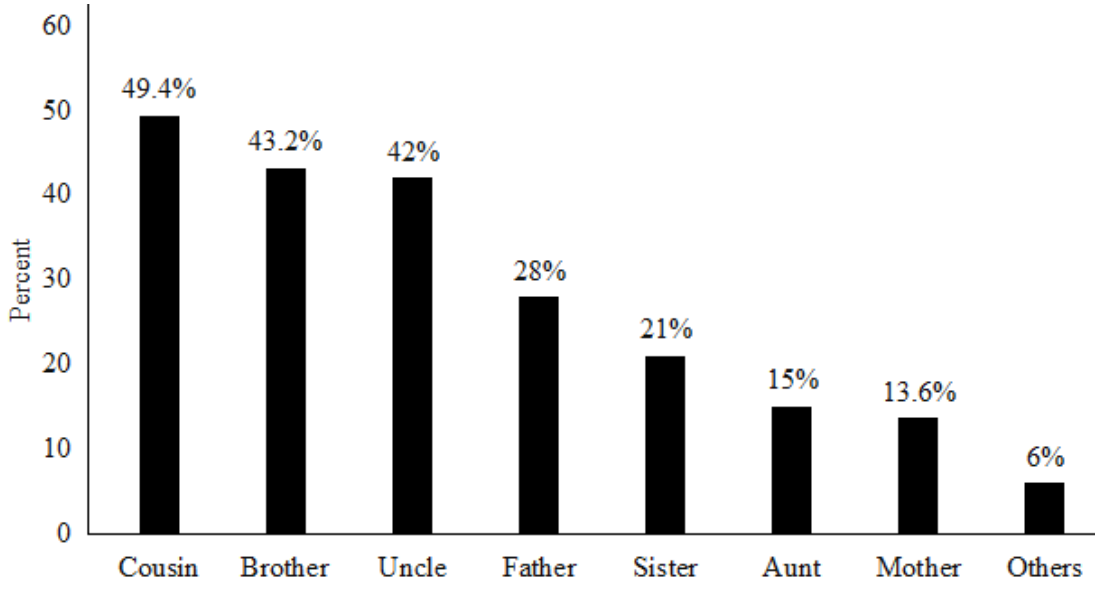

Figure 4.7: *History of ADA in the Family*

Figure 4.7 shows that 49.4% (n=41) of the respondents had a cousin who used alcohol and drugs, 43.2% (n=35) of the respondents had a brother who used alcohol and drugs, 42% (n=34) of the respondents said their uncle used alcohol and drugs and 28% (n=23) of the respondents said their father used alcohol and drugs. As per the figure, 21% (n=17) of the respondents had a sister who used alcohol and drugs, 15%

(n=12) of the respondents had an aunt who used alcohol and drugs, and 13.6% (n=11) of the respondents said their mother used alcohol and drugs. Six percent (6%, n=5) of the respondents had other relatives who used alcohol and drugs. The finding suggests that incidence of ADA was more prevalent among respondents' male relatives led in rank order by the cousins, brothers, uncles and fathers. The finding suggests that alcohol and substance use among cousins, brothers and uncles was a greater family risk factor than among parents. This is consistent with the observation in several studies (Tsamparli & Frrokaj, 2016; Schultz & Alpaslan, 2016; Whiteman et al., 2016; Windle et al., 2017) that the risk exposure due to ADA by a brother was higher than due to parents.

Dimensions of ADA

Respondents were asked to rate the extent to which various dimensions of ADA manifested in their lives. Table 4.3 presents the Minimum (Min), Maximum (Max), mean ($\bar{x}$) and Standard Deviation (SD) on a 5-point scale. Mean scores above $\bar{x}$=3.00 signify high prevalence of ADA among rehab clients and those less than or equal to $\bar{x}$=3.00 indicates low prevalence.

Table 4.3: *Descriptive Statistics of ADA Dimensions*

ADA indicators	n	Min	Max	$\bar{x}$	SD
I frequently use drugs	82	1	5	3.35	1.330
I fall sick whenever I stop using drugs	82	1	5	2.44	1.354
I use other drugs in addition to my choice of drug	82	1	5	2.44	1.391
I prefer using hard drugs such as bang, heroin, or cocaine	82	1	5	1.70	1.221
Composite mean score of ADA dimensions	82	1	5	2.48	5.296

Table 4.3 shows that in terms of whether respondents frequently used drugs, a moderately high mean score was computed ($\bar{X}$=3.35, SD=1.330). This finding affirms that ADA rehab clients were yet to recover from drug and substance addiction. However, with regards to whether respondents felt very sick whenever they stopped using drugs, the mean score was moderately low ($\bar{X}$=3.44; SD=1.354), suggesting that few ADA clients displayed severe withdrawal symptoms. Similarly, as pertains whether respondent used drugs in addition to their choice of drugs, a moderately low mean score was obtained ($\bar{X}$=2.44, SD=1.354) implying that multiple drug use was the exception rather than the norm for most of the ADA rehab clients. As pertains to whether respondents preferred using hard drugs such as bang, heroin, or cocaine, the mean score was very low ($\bar{X}$=1.70, SD=1.221). Collectively, the finding suggests that on average, most of the respondents frequently used alcohol and drugs. However, respondents did not often feel very sick and neither did they often combine other drugs with their drug of choice. The results also suggest that respondents rarely used hard drugs such as bang, heroin, or cocaine.

State of Family Cohesion among Families of Clients Recovering from ADA

The second objective of the study examined the state of family cohesion among the families of clients recovering from ADA in selected rehabilitation centres in Kiambu County. Table 4.4 presents descriptive statistics of rating of family cohesion items on a 5-point scale. The table presents the Minimum (Min), Maximum (Max), mean ($\bar{X}$) and Standard Deviation (SD) on a 5-point scale. Mean scores above $\bar{X}$=3.00 signify high manifestation of family cohesion among rehab clients' families

and those less than or equal to $\bar{x}$=3.00 indicates low manifestation of cohesion among rehab clients' families.

Table 4.4: *Descriptive Statistics of Family Cohesion Items*

Family cohesion items	n	Min	Max	$\bar{x}$	SD
In our family, we care for each other	82	1	5	3.90	1.334
In our family, we support each other during difficult times	82	1	5	3.83	1.333
In our family, we feel very close to each other	82	1	5	3.67	1.320
In our family, we have to consult each other always	82	1	5	3.28	1.340
Our family is very organized in everything	82	1	5	3.11	1.381
In our family, we have regular joint family activities	82	1	5	3.09	1.471
When we decide to do something in our family, it is difficult to change it	82	1	5	3.01	1.319
In our family, family members do not need the help of outsiders	82	1	5	2.70	1.459
Composite mean score of family cohesion items	82	1	5	3.35	0.709.

Table 4.4 shows that a moderately high score was computed on a scale of 1 to 5 with respect to family care for each other ($\bar{x}$=3.90, SD=1.334), support for each other during difficult times ($\bar{x}$=3.84, SD=1.333) and sense of closeness to each other ($\bar{x}$=3.67, SD=1.320). Table 4.3 further shows that a moderate mean score was obtained in terms of family consultation with each other ($\bar{x}$=3.28, SD=1.340), regular joint family activities ($\bar{x}$=3.09, SD= 1.471), family organization ($\bar{x}$=3.11, SD=1.381), family determination ($\bar{x}$=3.01, SD= 1.319) and family self-sufficiency ($\bar{x}$=2.70, SD=1.459). The table shows that on aggregate, a moderately high mean score was

obtained for family cohesion composite score ($\bar{x}$=3.35, SD=0.709). This finding suggests that most of the families of ADA rehab clients were moderately cohesive. This is an indication of the existence of family cohesion as a protective factor in keeping with family systems theory (Raul et al., 2017).

Relationship between ADA and Family Cohesion among Families of Clients Recovering from ADA

The third objective of the study was to find out the relationship between ADA and family cohesion in the families of the clients recovering from ADA in selected rehabilitation centres in Kiambu County. Spearman's rank correlation analysis was run to test the relationship between ADA Composite Score and Family Cohesion Composite Score at $p<.05$. Table 4.5 presents the output. The table shows that there was a weak and statistically insignificant negative correlation between ADA and Family cohesion (r=-.178, $p>.05$). The results suggest that as family cohesion weakened with increased ADA though the coefficient was not statistically significant. This finding is in line with the results of the review by Rowe (2012) which observed corresponding reduction in risk of ADA with higher levels of family cohesion.

Table 4.5: *Correlation between ADA and Family Cohesion Composite Scores*

Spearman's rho		1	2
ADA Composite Score	Correlation Coefficient	1.000	
	Sig. (2-tailed)	.	
	N	82	
Family Cohesion Composite Score	Correlation Coefficient	-.178	1.000
	Sig. (2-tailed)	.116	.
	N	79	79

A visual representation of the relationship between ADA and family cohesion is displayed in Figure 4.8. The figure shows that there was a wide dispersion of the

data points away from the line of best fit. This signifies that the correlation obtained was weak. As such, there is the likelihood of other factors with potentially stronger negative correlation to ADA than family cohesion.

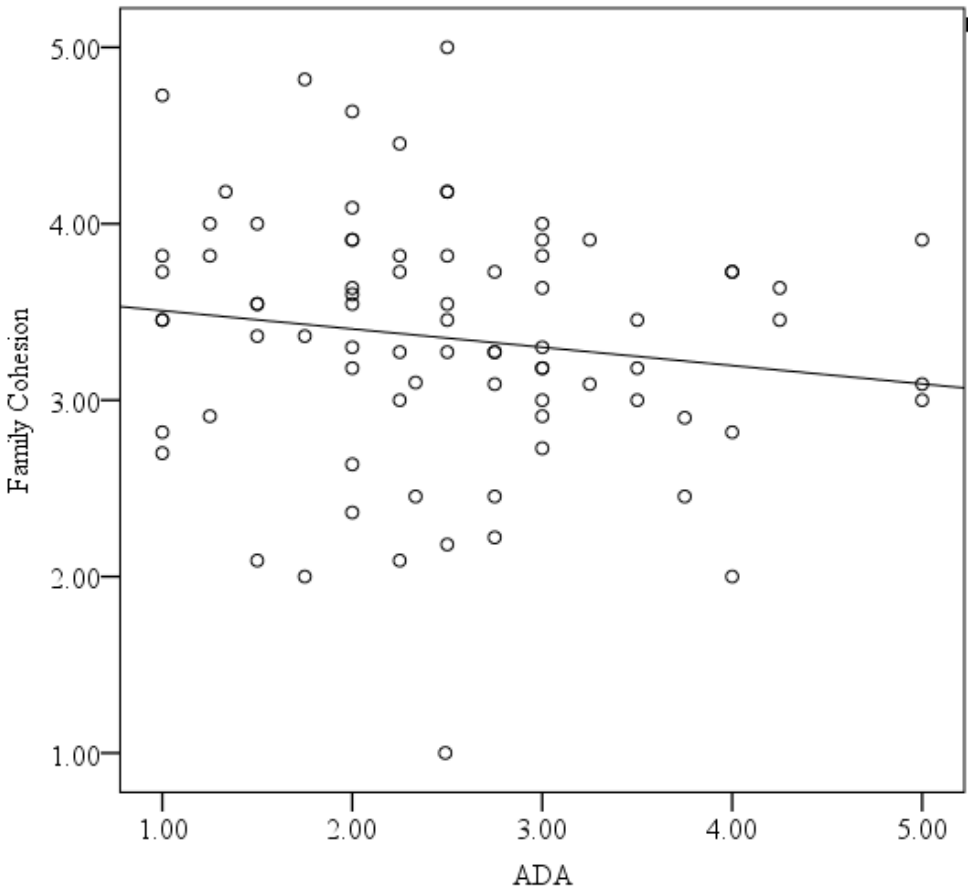

Figure 4.8: *Scatterplot of the Relationship between ADA and Family Cohesion*

Family Risk and Protective Factors Moderating the Influence of ADA on Family Cohesion

The fourth objective of the study examined the family risk and protective factors moderating the influence of ADA on the cohesion in families of clients recovering from ADA in selected rehabilitation centres in Kiambu County. This section presents descriptive findings of the family risk and protective factors and inferential analysis of family risk and protective factors as a moderating factor.

Descriptive Analysis of Family Risk and Protective Factors

Respondents' rating of family risk and protective factors is presented in Table 4.6 in terms of the Minimum (Min), Maximum (Max), Mean ($\bar{x}$) and Standard Deviation (SD) on a 5-point scale.

Table 4.6 Descriptive Statistics of Family Risk and Protective Factors

Family risk and protective factors	n	Min	Max	$\bar{x}$	SD
There are many of my extended family members who take alcohol and drugs	82	1	5	3.72	1.377
Our parent(s) are/were involved in our lives	82	1	5	3.67	1.384
Our parents supervised and guided our activities and relationships	82	1	5	3.17	1.436
In our family, we believe using drugs or alcohol is not a problem	82	1	5	2.18	1.439
I started using drugs because my parents were also using alcohol and drugs	82	1	5	1.95	1.386
I started using drugs because my brother/sister was using drugs	82	1	5	1.70	1.181
Overall mean rating of family risk and protective factors	82	1	5	2.73	1.367

Table 4.6 shows that a high mean score was obtained for the statement, "there are many of my extended family members who take alcohol and drugs" ($\bar{x}$=3.72, SD=1.377). This finding suggests that there was existence of family relations with a record of substance use, which is a potential risk factor to ADA rehab clients.

Table 4.6 shows that a high mean score was computed for the statement, "our parent(s) are/were involved in our lives" ($\bar{x}$=3.67, SD=1.384). This implies the presence of family bond which is a protective factor in the recovery of ADA clients. Further, a moderate mean score was computed on a 5-point scale for the statement,

"our parents supervised and guided our activities and relationships" ($\bar{X}$=3.17, SD=1.436). These results agree with the findings of a previous study by Nyaga and Mwai, (2016) which found that quality parental relationships and involvement as well as healthy family boundaries where children are guided clearly on the expected social values were protective factors. Interviews with center managers and family representatives revealed that authoritarian parenthood, absentee parents, codependence, lack of role model in the family and poor relationships were risk factors.

In terms of whether respondents' family believed using drugs or alcohol is not a problem, a low mean score was computed on a 5-point scale ($\bar{X}$=2.18, SD=1.439). This implies that most of the respondents' families did not believe that using alcohol is not a problem. As pertains to the statement; "I started using drugs because my parents were also using alcohol and drugs", a low mean score was computed on a scale of 1 to 5 ($\bar{X}$=1.95, SD=1.386). This suggests that respondents did not start using drugs because their parents were also substance users. Respondents were asked whether they started using drugs because their brother/sister was using drugs. It was found that the lowest mean score was obtained on a 5-point scale ($\bar{X}$=1.70, SD=1.181) which means that respondents did not start using drugs because their brother or sister was using substance. These findings are in keeping with the study by El Kazdouh et al. (2018) which identified family beliefs that disproved alcohol and drug use was a protective factor for ADA patients

Social support was a salient theme drawn from qualitative findings. Center managers and family representatives listed the following as protective factors: availing themselves and having family time together, psycho-education on ADAs and

their effect, having good communication and better relationships and stopping enabling ADA. Further, most families supported their ADA member through treatment, with parents, siblings or relatives covering the cost. According to center managers, ADA clients had a positive attitude towards family support because they needed the support for them to be sober and able to reintegrate to the community. However, some blamed family for their being in the treatment. ADA clients mostly craved for support and in situations where the family support is assured, then the progress is positive. This finding is consistent with the outcomes in a study by Strunin et al. (2015) among Mexican youths which underscored that family connectedness and emotional support acted as protective factors for ADA. It affirms all the three dimensions of Circumplex Model of Marital and Family systems as proposed by David et al. (1989a) namely: cohesion, flexibility and communication.

Further interview results revealed that an understanding family ready to let go and embrace them once more is the prayer of every client. These results suggest that social support from the family system plays an important role in determining outcomes for ADA clients and family cohesion. This agrees with the argument by Goldberg et al. (2019) that the family plays an important role in providing support in the treatment and recovery process of a loved one. The finding is also in keeping with several studies that identify family bonds as playing an important role in protecting families from ADA (Strunin et al., 2015; Villarreal et al., 2019; Wheeler et al., 2019).

Relationship between Risk and Protective Factors and ADA

Spearman's rank correlation analysis was run between ADA and six risk and protective factors. Results of the analysis is presented in Table 4.7 at $p<.5$

Table 4.7: *Correlation between Family risk and protective factors and ADA*

Spearman's rho		1
ADA	Correlation Coefficient	1.000
	Sig. (2-tailed)	.
	N	82
Parental involvement in childhood	Correlation Coefficient	.116
	Sig. (2-tailed)	.307
	N	82
Parental supervision	Correlation Coefficient	.119
	Sig. (2-tailed)	.298
	N	82
Parental substance use	Correlation Coefficient	.077
	Sig. (2-tailed)	.503
	N	82
Family attitude towards substance use	Correlation Coefficient	-.019
	Sig. (2-tailed)	.868
	N	82
Substance use in the extended family	Correlation Coefficient	.359**
	Sig. (2-tailed)	.001
	N	82
Substance use among siblings	Correlation Coefficient	.182
	Sig. (2-tailed)	.109
	N	82

Table 4.7 shows that there was a statistically significant positive correlation between substance use in the extended family and alcohol and drug abuse (r=.359, p<.01). This finding indicates that ADA increased with increased use of alcohol and drug among the extended family. This is in line with the findings of Strunin et al. (2015) with posited that extended family systems can either be a risk or a protective factor for initiation to ADA. The table however shows that there was no statistically significant relationship between ADA and all the other risk and protective factors. These are: parental involvement in childhood (r=.116, p>.05), parental supervision (r=.298, p>.05), parental substance use (r=.077, p>.05), family attitude towards substance use (r=-.019, p>.05), substance use among siblings (r=.182, p>.05). These results suggest that most of the factors had limited influence on ADA.

Moderating Effect of Family Risk and Protective Factors on the Influence of ADA on Family Cohesion

To test the moderating effect of family risk and protective factors on the influence of ADA on family cohesion, family cohesion composite score was regressed on the main effect of ADA and the interaction effect of ADA and family risk and protective factors. The output is presented in Table 4.8.

Table 4.8: *Regression of Family Cohesion on Family Risk and Protective Factors*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.325[a]	.106	.069	.68414

a. Predictors: (Constant), ADA_Family Risk & Protective Factors, Family Risk and Protective Factors, ADA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.038	3	1.346	2.876	.052[b]
	Residual	34.168	79	.468		
	Total	38.206	82			

a. Dependent Variable: Family Cohesion
b. Predictors: (Constant), ADA_Family Risk and Protective Factors, Family Risk and Protective Factos, ADA

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.130	.730		5.660	.000
	ADA	-.029	.262	-.039	-.111	.912
	Family Risk and Protective Factors	-.217	.307	-.223	-.707	.482
	ADA_Family Risk Protective Factors	-.026	.109	-.113	-.238	.812

a. Dependent Variable: Family Cohesion

Table 4.8 shows that there was no statistically significant interaction effect between family risk and protective factors and ADA on family cohesion (B=-.026, p>.05). The table shows that neither was there a statistically significant main effect of either ADA (B=-.029, p>.05) or family risk and protective factors (B=-.217, p>.05) on family cohesion. The finding suggests that family risk and protective factors did not significantly moderate the influence of ADA on the cohesion in families of clients

recovering from ADA. The overall model suggested that family risk and protective factors accounted for 10.6% of the variability in family cohesion (R^2=.106, p>.05). The results defy the notion advanced by Alhyas et al. (2015) that family protective factors acted as buffers against the adverse effects of ADA on family cohesion. This may be due to the fact that there were as many family risk factors as there were protective factors, hence offsetting each other.

Mediating Role of Changes and Adaptations in Family Systems

The fifth objective of the study evaluated the mediating role of changes and adaptations in family systems on the influence of ADA on cohesion in families of clients recovering from ADA in selected rehabilitation centres in Kiambu County. This section presents descriptive results of the various changes in family systems and mediation analysis of the changes and adaptations in family on family cohesion.

Descriptive Analysis of Changes and Adaptations in Family Systems

Respondents were asked to rate their level of agreement with various indicators of changes and adaptations in family systems. Descriptive analysis of the changes and adaptations in family systems following ADA is presented in Table 4.9. The table shows the minimum (Min), maximum (Max), mean ($\bar{x}$) and standard deviation (SD). Mean scores above $\bar{x}$=3.00 signify high changes and adaptations in family systems of rehab clients' families and those less than or equal to $\bar{x}$=3.00 indicates low changes and adaptations in family systems.

The table shows that a high mean score was obtained on a 5-point scale for the statement; "The family has been participating in the treatment and recovery process of the patient" ($\bar{X}$=3.90, SD=1.420). This finding implies that most of the respondents

agreed that their family was involved in their treatment and recovery process. This involvement potentially served as a protective factor for ADA rehabilitation patients.

Table 4.9: *Descriptive Statistics of Changes and Adaptations in Family Systems*

Change items	n	Min	Max	$\bar{x}$	SD
The family has been participating in the treatment and recovery process of the patient	82	1	5	3.90	1.420
My family members react with anger and hostility to me due to my alcohol and drug problem	82	1	5	3.49	1.600
Since the problem began, there has been changes in my family leadership	82	1	5	3.37	1.513
Since the problem began, there has been changes in the family rules	82	1	5	3.36	1.423
Since the problem began, there has been changes in family roles	82	1	5	3.28	1.527
The family has been able to accommodate the changes that have come with the problem	82	1	5	2.72	1.385
Our family has remained stable despite the alcohol and drug problem	82	1	5	2.35	1.412
Overall mean score of changes and adaptations in family systems	82	1	5	3.21	1.469

Table 4.9 shows that a moderately high mean score was computed on a scale of 1 to 5 for the statement; "my family members react with anger and hostility to me due to my alcohol and drug problem" ($\bar{x}$=3.49, SD=1.600). This suggests that respondents' family were angry and hostile to them due to ADA. This finding agrees with Guo et al. (2016) who argue that internally, the family system may suffer instability due to emotional cut-offs and enmeshment as a way of coping with ADA.

It also agrees with Daley et al. (2018) who observe that families experience a great deal of emotional turmoil including anger and hostility that may be counterproductive for family cohesion.

Table 4.9 also shows that a moderately high mean score was computed on a 5-point scale for the statement; "since the problem began, there has been changes in my family leadership" ($\bar{X}$=3.37, SD=1.513). This finding suggests that ADA occasioned slight changes in respondents' family leadership. Similarly, a moderately high mean score was also obtained on a 5-point scale regarding the statement; "since the problem began, there has been changes in the family rules" ($\bar{X}$=3.36, SD=1.423). This suggests that ADA triggered changes and adaptations in family rules. In addition, a moderately high mean score was found concerning the statement; "since the problem began, there has been changes in family roles" ($\bar{X}$=3.28; SD=1.527). This finding implies that ADA resulted in changes and adaptations in family roles for most of the respondents' families. A common theme identifiable across these statistics is that ADA resulted in changes and adaptations in family systems. This finding agrees with the viewpoint of Petra, 2020) that various roles may be assumed by family members in families with ADA.

A moderately low mean score was computed for the statement; "the family has been able to accommodate the changes that have come with the problem" ($\bar{X}$=2.72, SD=1.385). This finding implies that the respondents' family struggled to adjust to changes resulting from ADA. As pertains whether respondents' family has remained stable despite the alcohol and drug problem, a low mean score was computed on a 5-point scale ($\bar{X}$=2.35, SD=1.412), implying that respondents' families were destabilized by ADA.

Interviews with center managers and family representatives revealed that drug use mostly brings division among members, drugs and alcohol has brought differences in family communication and also distanced and created gaps in working relationships. Further, there was a negative attitude of family members towards ADA affected member. This is potentially because of the burden of care that ADA meted on the family and the family's disapproval of alcohol and substance abuse.

To test the mediating role of changes and adaptations in family systems on the influence of ADA on cohesion in families of clients recovering from ADA, mediated regression analysis was performed and the output presented in Tables 4.10 to 4.11.

Table 4.10: *Regression of Family Cohesion on ADA*

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.144[a]	.021	.008	.70563

a. Predictors: (Constant), ADA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.815	1	.815	1.637	.205[b]
	Residual	38.339	81	.498		
	Total	39.154	82			

a. Dependent Variable: Family Cohesion

b. Predictors: (Constant), ADA

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.612	.218		16.547	.000
	ADA	-.104	.081	-.144	-1.280	.205

a. Dependent Variable: Family Cohesion

Table 4.10 presents a test of the direct effect of ADA on family cohesion. The table shows that there was no statistically significant direct association between ADA composite score and family cohesion composite score, R^2=.021, $F(1)$=1.637, p>.05.

The finding suggests that 1 unit increase in alcohol and substance abuse explained 0.104 unit reduction in family cohesion to a statistically insignificant degree (B=-.104, p>.05). This finding implies that the effect size of the impact of ADA on family cohesion was insignificant.

Changes and adaptations was also regressed on ADA to test the predictive power of ADA on family changes and adaptations. Table 4.11 presents the output.

Table 4.11: *Regression of Family Changes and Adaptation on ADA*

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.241[a]	.058	.046	.89155

a. Predictors: (Constant), ADA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.926	1	3.926	4.940	.029[b]
	Residual	63.588	81	.795		
	Total	67.515	82			

a. Dependent Variable: Changes and Adaptation in Family Systems

b. Predictors: (Constant), ADA

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.598	.272		9.560	.000
	ADA	.226	.102	.241	2.223	.029

a. Dependent Variable: Changes and Adaptation in Family Systems

The table shows that ADA significantly predicted family changes and adaptation, R^2, $F(1) = 4.940$, p<.05. An examination of the coefficients reveals that one unit increase in ADA was associated with 0.226 increase in family changes and adaptation (B=0.226, p<.05). The finding suggests that the effect size of ADA on

family changes and adaptation was small but statistically significant. It can thus be inferred that ADA occasioned inevitable changes and adaptations in family systems.

Family cohesion was finally regressed on changes and adaptation in family systems and the output presented in Table 4.12.

Table 4.12: *Regression of Family Cohesion on Changes and Adaptation in Family Systems*

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.159[a]	.025	.013	.70398

a. Predictors: (Constant), Changes and Adaptation in Family Systems

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.994	1	.994	2.005	.161[b]
	Residual	38.161	81	.496		
	Total	39.154	82			

a. Dependent Variable: Family Cohesion

b. Predictors: (Constant), Changes and Adaptation in Family Systems

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.924	.312		9.379	.000
	Changes and Adaptation in Family Systems	.132	.093	.159	1.416	.161

a. Dependent Variable: Family Cohesion

The table shows that changes and adaptations in family systems did not significantly predict family cohesion, R^2=.025, $F(1)$= 2.005, p>.05. This finding suggests that changes in family systems and adaptations did not mediate the relationship between ADA and family cohesion. This finding contradicts the theoretical assumption that family cohesion outcomes are mediated by adaptations in

family systems (Raul et al., 2017). This may be due to the disruption that ADA brings about into the family, forcing family members to assume responsibilities and roles that they would not have otherwise assumed. It means that a disruption of the status quo do not augur well for family members.

Chapter Summary

This chapter has presented the analysis and discussion of the research results. The analysis has comprised descriptive findings and inferential analysis. These were presented in relevant figures and tables. In the next chapter, the major findings are summarized and implications discussed.

CHAPTER FIVE: SUMMARY OF FINDINGS, RECOMMENDATIONS, AREAS FOR FURTHER RESEARCH AND CONCLUSION

Introduction

The purpose of this study was to establish the influence of ADA on family cohesion with a view to establish how this happens among families of recovering clients in selected rehabilitation programs in Kiambu County. This final chapter begins by summarizing the major findings of the study. The summary is presented in line with the five specific objectives. Thereafter, the practical and theoretical implications of the study are discussed before presenting recommendations of the study as well as further research areas. Lastly, the key conclusions of the study are drawn at the end of the chapter.

Summary of Findings

ADA Consumption Trends among Clients Recovering from ADA

The first objective of the study was to establish ADA consumption trends among clients recovering from ADA in selected rehabilitation programs in Kiambu County. The study established that alcohol was the main drug of choice for ADA patients (80.2%), followed by cigarettes (30.9%), bang (24.7%) and khat (24.7%). The study established that most of these drugs had other names. A minority (30%) of the responding ADA rehab clients combined their drug of choice with other drugs. Most of the responding ADA rehab clients were male (79.3%), aged 26-35 years (42.7%), never married (50.0%), attained tertiary level of education (79.2%), were raised up by both biological parents (55.7%) and had no children (51.2%). Majority (72.6%) of the respondents were introduced to ADA by friends. About half (50.6%) of the respondents had used substance for more than 10 years, with up to 78.0% of the respondents using substance often. Majority of the respondents felt sick whereby 61%

felt a bit sick and 15% felt very sick. In terms of incidence of ADA in the family, 49.4% of the respondents had a cousin who used alcohol and drugs, 43.2% of the respondents had a brother who used alcohol and drugs, 42% of the respondents said their uncle used alcohol and drugs and 28% of the respondents said their father used alcohol and drugs.

State of Family Cohesion among Families of Clients Recovering from ADA

The second objective of the study was to determine the state of family cohesion among the families of clients recovering from ADA in selected rehabilitation centres in Kiambu County. A moderately high score was established on a scale of 1 to 5 with respect to family care for each other (M=3.90, SD=1.334), support for each other during difficult times (M=3.84, SD=1.333) and sense of closeness to each other (M=3.67, SD=1.320). Further results yielded a moderate mean score in terms of family consultation with each other (M=3.28, SD=1.340), regular joint family activities (M=3.09, SD= 1.471), family organization (M=3.11, SD=1.381), family determination (M=3.01, SD= 1.319) and family self-sufficiency (M=2.70, SD=1.459).

Relationship between ADA and Family Cohesion among Families of Clients Recovering from ADA

The third objective of the study was to find out the relationship between ADA and family cohesion in the families of the clients recovering from ADA in selected rehabilitation centres in Kiambu County. The study established a weak negative correlation between ADA and Family cohesion (r=-.178, p>.05). There was a wide

dispersion of the data points away from the line of best fit signifying that the correlation obtained was weak.

Family Risk and Protective Factors Moderating the Influence of ADA on Family Cohesion

The fourth objective of the study was to examine the family risk and protective factors moderating the influence of ADA on the cohesion in families of clients recovering from ADA in selected rehabilitation centres in Kiambu County. The study found a statistically significant positive correlation between substance use in the extended family and alcohol and drug abuse (r=.359, p<.01). However, there was no statistically significant relationship between ADA and all the other risk and protective factors. These are: parental involvement in childhood (r=.116, p>.05), parental supervision (r=.298, p>.05), parental substance use (r=.077, p>.05), family attitude towards substance use (r=-.019, p>.05), substance use among siblings (r=.182, p>.05). There was no statistically significant interaction effect between family risk and protective factors and ADA on family cohesion (B=-.026, p>.05). Neither was there a statistically significant main effect of either ADA (B=-.029, p>.05) or family risk and protective factors (B=-.217, p>.05) on family cohesion.

Mediating Role of Changes and Adaptations in Family Systems

The fifth objective of the study was to evaluate the mediating role of changes and adaptations in family systems on the influence of ADA on cohesion in families of clients recovering from ADA in selected rehabilitation centres in Kiambu County. Results showed that one unit increase in alcohol and substance abuse explained 0.104 unit reduction in family cohesion to a statistically insignificant degree (B=-.104, p>.05). This finding implies that the effect size of the impact of ADA on family

cohesion was insignificant. It was found that ADA significantly predicted family changes and adaptation, R^2, $F(1) = 4.940$, $p<.05$ whereby one unit increase in ADA was associated with 0.226 increase in family changes and adaptation (B=0.226, $p<.05$). However, changes and adaptations in family systems did not significantly predict family cohesion, $R^2=.025$, $F(1)= 2.005$, $p>.05$ suggesting that changes in family systems and adaptations did not mediate the relationship between ADA and family cohesion.

Implications

Several practical and theoretical implication accrue from this study. With respect to ADA consumption trends, the rehab centers are populated by young clients with more than a decade of ADA use. This calls for preventative initiatives during formative stages. It can be surmised from the established trends that family environment portend implications on initiation to alcohol and drugs. The first environmental issue is drug markets. Alcohol and cigarettes which are identified as the two most consumed drugs of choice by ADA rehab clients are arguably readily available and easily accessible than other drug types. The second environmental issue is peer pressure which plays a main role in initiation into drug and substance use. Thirdly is the incidence of ADA in the family, whereby male relatives potentially serve as undesirable role models. These environmental factors present a challenge on family systems to put into perspective the various measures that they can implement to protect their kin from alcohol and drugs addiction whether as first-timers or relapsees. It behooves parents, especially fathers to be intentional about modelling habits, associations and values that make alcohol and drug use less attractive to their children.

For families dealing with a case of addiction, family cohesion is potentially a protective factor to the patient and the family system. The care, support and sense of closeness to each other that define family cohesion means that there exists a relatively secure base to retreat to when the family system encounters challenges on the path to recovery. However, existing gaps in family cohesion open loop holes for family dysfunction that makes family systems less resilient. Family cohesion, however, is not a panacea to recovery from ADA and integration of other interventions to ensure total healing is necessary. That family systems are not self-sufficient create space for deliberate help-seeking on the part of families and the addicted member as well as help extension on the part of rehab institutions and family therapists.

Substance use in the extended family is a risk factor with significant practical implications on alcohol and drug use, abuse and recovery. Exposure to relatives who use drugs and substance increases chances of drug use, abuse and relapse. This calls for family sensitization, suggesting that holistic family therapy throughout the rehabilitation cycle is necessary. This has time, resource and program design implications that ought to be factored into the therapy equation. Other family risk and protective factors are of limited consequence and less focus can be directed to them.

Alcohol and drug abuse triggers changes and adaptations in family systems that potentially stretch family resources. Changes in family leadership, rules and roles calls for the empowerment of the entire family system to cope effectively to restore and/or maintain family homeostasis. This calls for embedding psycho-education programs that address family system's pain points as a result of family disruptions occasioned by the member's alcohol and drug abuse. However, because changes and adaptations in family systems do not necessarily explain family cohesion in the face of ADA, efforts to foster family cohesion should be intended to facilitate faster

recovery of rehab patients. Meanwhile, maintenance of support systems that promote family cohesion is necessary.

In terms of theory, the Circumplex Model of Marital and Family systems was affirmed as a robust theory for making sense of family cohesion when dealing with a case of ADA within the family system. It became apparent that the construct of family cohesion situates itself on a continuum from separateness to togetherness whereby a sense of togetherness is more present in cohesive families than non-cohesive ones. Connectedness stood out among the four levels of family cohesion in keeping with the theoretical model. This reflects a semblance of balance, suggesting that there was a degree of optimal functioning on average. The model facilitated the revelation that marital and family flexibility was low since the family system struggled to accommodate change in family leadership, family roles and rules and demonstrated low capacity to maintain stability through the change process.

Using the Circumplex Model to diagnose families of rehab clients, it can be argued that the average family system was rigid since inability to accommodate change was apparent. Further, the average family system demonstrated limited competence in communication which is theoretically held as the vehicle that facilitates movement in cohesion and flexibility. Manifestations of anger and hostile reactions to ADA client was apparent, meaning that family systems were less equipped with communication skills that generate empathic responses.

In retrospect, the conceptual model yielded limited effect sizes that are indications that the model was less robust for investigating the nexus between ADA and family cohesion. With the exception of the relationship between ADA and changes and adaptations in the family systems, and the extended family system as a risk factor, a large variability in family cohesion was not explained by the model.

Recommendations

In light of the findings and implications discussed, the following recommendations are proposed:

i. Rehabilitation centers should not only focus on treating rehab clients but also become a support system to enable family systems to accommodate changes and adapt positively to the inevitable changes in family roles, rules and leadership.

ii. Family therapists dealing with ADA cases should sensitize members of the family on the need to be intentional about socializing the family to avoid experimenting with alcohol and drugs at an early age. To this end, parental role-modelling should be emphasized, especially by the fathers. Messaging should include the long term socioeconomic benefits and costs of family choices.

iii. In light of the fact that the family system may have limited control of the family environment, family therapists should explore with the family of the rehab client options available in the family system to safeguard gains made and accelerate recovery. This may include changing the social environment or setting family boundaries.

iv. Families dealing with a case of ADA should be encouraged to foster an environment of care, support and sense of belonging to all members of the family and especially to the rehab client. Awareness should be created to treat ADA as any other disease in order to mitigate hostility towards the ADA patient. This includes highlighting the benefits of family stability despite the alcohol and drug problem.

v. Rehabilitation centers should also help family systems consolidate and reinforce prevailing family cohesiveness that act as a protective factor not just to the

recovering addict but to the entire family system. A reward system for families participating in the treatment and recovery process of the patient can be institutionalized to incentivize families.

Suggestions for Future Studies

Although the study objectives have been achieved, there are a few gaps present in the study that opens ground for future studies as follows:

i. The present study was undertaken among predominantly male rehab clients. It would therefore be interesting to conduct a study that compares and contrasts the dynamics of ADA and family cohesion using female rehab client samples. This can inform the design of a more targeted family systems interventions.

ii. This study has demonstrated that family cohesion is a complex concept that alcohol and drug abuse alone cannot determine. There is also the potential of bidirectional relationship between ADA and family cohesion. It is therefore imperative to develop a more robust conceptual model for investigating and analyzing the variables underpinning family cohesion at the intersection of ADA.

iii. The findings of this study showed that the demographic profile of the research participants comprised relatively well-educated and potentially socioeconomically endowed ADA rehab clients. This limits generalizability of the study findings to populations with similar demographic characteristics. Therefore, future researchers should draw inferences from less socioeconomically endowed samples.

Conclusion

Conclusion is drawn that young male adults were most affected by ADA. Alcohol addiction was the main disease rehab centers were treating. The cases were severe in nature due in part to years of consumption that dated back to childhood. Families of clients recovering from ADA were generally cohesive as characterized by family care, support and closeness. They were characterized by a degree of optimal functioning. However, rigidity and deficiencies in communication were manifest. Further, incidences of ADA in the extended family was a significant risk factor that needed management to mitigate effect on treatment. Alcohol and drug abuse had limited impact on family cohesion, though the impact on family changes and adaptations in family systems was adverse. Practical implications of the study have been discussed and recommendations for family therapists and future research directions proposed.

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APPENDIX I: CONSENT FORM

Introduction:

My name is Jane Wambui Mugo. I am a graduate student at PAC University. I am carrying out an academic research on the influence of alcohol and drug abuse on family cohesion. This is in partial fulfilment of the requirement for the award of the degree of Master of Arts in Marriage and Family Therapy at the University.

Confidentiality agreement

For purposes of ensuring confidentiality, kindly note that all the information given in the questionnaire will be strictly treated as confidential and will be used for purposes of this research study only. Please do not reveal your name anywhere on the instrument.

Informed Consent Statement:

I understand that participation in this study is voluntary and that I am free to withdraw my consent to participate in this study at any time. Refusal to participate or withdrawal will involve no penalty or benefits. I have been given the opportunity to ask questions about the research, and I have received answers concerning the areas that I do not understand. I willingly consent to participate in this research.

_____ _____

Signature of Respondent Date

APPENDIX II: RESEARCH INSTRUMENT FOR CLIENTS

Questionnaire for Clients

Instructions

- Thank you for accepting to participate in this research study activity.
- Please do not write your name on the questionnaire.
- Please indicate with a tick in the space provided the choice of answer.

Section A: Biodata

1. Gender: a) Male: ____ b) Female: ___
2. How old are you? (Tick your age group)
   a) Below 25 years: ____
   b) 26 – 35 years: ____
   c) 36 – 45 years: ____
   d) 46 – 55 years: ____
   e) Above 55 years: ____

3. Current Relationship Status:
   a) Single – never married: ____ b) Single – divorced: ____
   c) Single – widowed: ____ d) Married: ____
   e) Living together: ____ f) Separated: ___

4. Education:
   a) Primary Education:_____ b) Secondary Education: ____
   c) College Education: ____ d) University Education: ____
5. What kind of a family do you come from? (Tick the correct answer)
   a) Two parent family (biological): ____
   b) Two parent - step family: ____
   c) Polygamous family: ____
   d) Single parent family – (never married): ____
   e) Single parent family – separated: ____
   f) Single parent family _____
   g) Widowed/widower: _____

6. Do you have children?

   Yes _____ No _____

7. Your family position: Tick your appropriate family position below.
   a) 1st born: ____
   b) 2nd Born: : ____
   c) 3rd Born: ____
   d) 4th Born ____
   e) Last child: ____
   f) Other (Please specify) _____
8. Which is your County/country of origin?

   _____

SECTION B – ADA TRENDS

9. How long have you used drugs?
   a) Below 1 year: ____
   b) 1 – 3 years: ____
   c) 3 - 5 years: ____
   d) d) 5-7 years: ____
   e) 7 - 10 years: ____
   f) More than 10 years _____

10. Kindly indicate who introduced you to alcohol and drug use.

a) Father: ____ d) Brother: ____ g) Other: ____
b) Mother: ___ e) Sister: ___
c) A relative: ____ f) A friend: ____

11. What is your drug of choice?

a) Alcohol: ____ d) Khat: ____ g) Kuber: ____
b) Marijuana:____ e) Heroine: ____ h) Others: ___
c) Cigarettes: ___ f) Cocaine: ____

12. Does the drug of choice you use have another name? Please write the name(s) below: _____

13. Are there other drugs you use together with your drug of choice? If yes, please list? _____

14. How frequently do you use these drugs?

    Rarely ___ Occasionally: ___ Often ___ Very often ____

15. How do you feel whenever you stop using the drugs?

    I don't feel anything ___ I feel a bit sick ___ I feel very sick _____

16. Who else uses alcohol and drugs in your family?

a) Father: _____ d) Sister: _____ g) Aunt: _____

b) Mother: _____ e) Cousin: ____ h) Other: _____

c) Brother: _____ f) Uncle: _____

17. Using the scale below, please fill in the corresponding number that agrees with your answer in the questions below.

1	2	3	4	5
Not at all	Rarely	Sometimes	Almost always	Always

Item	Rating				
I prefer using hard drugs such as marijuana, heroin or cocaine	1	2	3	4	5
I use other drugs in addition to my choice of drug	1	2	3	4	5
I frequently use drugs	1	2	3	4	5
I feel very sick whenever I stop using drugs	1	2	3	4	5

SECTION C: FAMILY RISK AND PROTECTIVE FACTORS

Using the scale below, please fill in the corresponding number that agrees with your answer in the questions below.

1	2	3	4	5
Strongly Disagree	Generally Disagree	Undecided	Generally Agree	Strongly Agree

Family Related Risk Factors	Rating				
Our parent(s) are/were involved in our lives	1	2	3	4	5
Our parent (s) supervised and guided our activities and relationships	1	2	3	4	5
I started using drugs because my parent(s) were also using alcohol or drugs	1	2	3	4	5
In our family, we believe using drugs or alcohol is not a problem	1	2	3	4	5
There are many of my extended family members who take alcohol and drugs	1	2	3	4	5
I started using drugs because my brother/sister was using drugs	1	2	3	4	5

SECTION D: CHANGES AND ADAPTATION IN FAMILY SYSTEMS

Using the scale below, please fill in the corresponding number that agrees with your answer in the questions below.

1	2	3	4	5
Strongly Disagree	Generally Agree	Undecided	Generally Agree	Strongly Agree

	1	2	3	4	5
Since the problem began, there has been changes in family leadership					
Since the problem began, there has been changes in family roles					
Since the problem began, there has been changes in family rules					
The family has been able to accommodate the changes that have come with the problem					
Our family has remained stable despite the alcohol and substance use					
My family members react with anger and hostility to me due to my alcohol and drug problem					
The family has been participating in the treatment and recovery process of the patient.					

SECTION E: STATE OF FAMILY COHESION

Using the scale below, please fill in the corresponding number that agrees with your answer in the questions below.

1	2	3	4	5
Strongly Disagree	Generally Agree	Undecided	Generally Agree	Strongly Agree

In our family, we care for each other	1	2	3	4	5
In our family, we have regular joint family activities	1	2	3	4	5
In our family we support each other during difficult times	1	2	3	4	5
In our family, we feel very close to each other	1	2	3	4	5
In our family, we rarely do things together	1	2	3	4	5
Family members are on their own when a problem arises and needs to be solved	1	2	3	4	5
In our family we have to consult each other always	1	2	3	4	5
In our family, family members do not need the help of outsiders	1	2	3	4	5
When we decide to do something in our family, it is difficult to change it	1	2	3	4	5
Our family is very organized in everything	1	2	3	4	5
We never seem to get organized in our family	1	2	3	4	5

APPENDIX III: QUESTIONNAIRE FOR FAMILY REPRESENTATIVES

Thank you for accepting to take time to respond to the following questions

Prevalence

1. In your view, and based on the history of the clients, which is the drug of choice that the client uses? _____
2. What other drugs does he/she use together with the drug of choice? Kindly list them below in order of frequency of use.

   _____
3. Are you aware of other names for the drugs commonly used by the client have? Kindly list them below? _____

Family Related Risk Factors, Adaptability and Cohesion

4. What in your view is the role of the family in contributing to the ADA problem in the family?
5. What can family members do differently to protect the client from ADA?
6. In your view, how have the drug use behaviours in the clients affected the family unity in the following areas?

   Closeness in relationships within the family

   _____

   Dealing with problems in the family

   _____

   Communication with each other in the family

   _____

Family Role in Treatment

7. Please indicate how the client was brought to the treatment program.
   a. Was forced: ____
   b. Came voluntarily: ____
   c. Was brought by a friend: ____
   d. Was brought by a family member: ____
8. What do family members feel about the ADA affected family member?

9. How do the family members support the client through the treatment? Who pays for treatment?
    a. Parents: _____
    b. Brother: ____
    c. Relative: ____
    d. Other: ____

20 In your opinion, how do clients feel about family support by members in the treatment process? _____

APPENDIX IV: QUESTIONNAIRE FOR CENTRE MANAGERS

Thank you for accepting to take time to respond to the following questions

Prevalence

1. In your view, and based on the history of clients, which is the drug of choice for most the clients you admit?

   _____

2. Do they use other drugs together with the drug of choice? Kindly list them below in order of frequency of use.

   _____

3. Do the drugs commonly used by the clients have different names? Kindly list them below?

   _____

4. Which age group is most affected by alcohol and drug abuse?
   a) Below 25 years: ____
   b) 26 – 35 years: ____
   c) 36 – 45 years: ____
   d) 46– 55 years: ____
   e) Above 55 years: ____

Family Related Risk Factors, Change/Adaptability and Cohesion

5. What in your view is the role of the family in contributing to the ADA problem in the family?
6. What can family members do differently to protect their members from ADA?
7. In your view, how have the drug use behaviours in the clients affected the family unity in the following areas?

Closeness in relationships within the family

_____

Dealing with problems in the family

_____

Communication with each other in the family

_____

8. Please indicate how you the majority of the clients are brought to the treatment program.

a. Was forced: ____
b. Came voluntarily: ____
c. Was brought by a friend: ____
d. Was brought by a family member: ____

9. In your own view, what is the family members' attitude towards the ADA affected family member?
10. Does the family support the client through the treatment?
11. Who pays for treatment?
    a. Parents: _____
    b. Brother: ____
    c. Relative: ____
    d. Other: ____

12. In your opinion, how do clients feel about family support by members in the treatment process?

APPENDIX V: RELIABILITY STATISTICS

CONSTRUCT A: ALCOHOL AND DRUG ABUSE

Reliability Statistics

Cronbach's Alpha[a]	Cronbach's Alpha Based on Standardized Items[a]	N of Items
.085	-.211	4

a. The value is negative due to a negative average covariance among items. This violates reliability model assumptions. You may want to check item codings.

Item Statistics

	Mean	Std. Deviation	N
ADA Concurrency	.3750	.51755	8
ADA Frequency	2.5000	.53452	8
ADA Severity	1.8750	.83452	8
ADA Type	2.0000	1.30931	8

Inter-Item Correlation Matrix

	ADA Concurrency	ADA Frequency	ADA Severity	ADA Type
ADA Concurrency	1.000	-.258	.786	.000
ADA Frequency	-.258	1.000	-.801	.000
ADA Severity	.786	-.801	1.000	.000
ADA Type	.000	.000	.000	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
ADA Concurrency	6.3750	1.982	.368	.	-.541[a]
ADA Frequency	4.2500	3.357	-.438	.	.303
ADA Severity	4.8750	2.125	-.015	.	-.101[a]
ADA Type	4.7500	1.071	.000	.	-.250[a]

a. The value is negative due to a negative average covariance among items. This violates reliability model assumptions. You may want to check item codings.

CONSTRUCT B: FAMILY RELATED RISK FACTORS

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.702	.392	6

Item Statistics

	Mean	Std. Deviation	N
Family related risk factors; Our parents were involved in our lives	1.88	1.642	8
Family related risk factors: Our parents supervised and guided activities and relationships	2.63	1.768	8
Family related risk factors: I started using drugs because my parents were using alcohol or drugs	1.13	.354	8
Family related risk factors: In our family, we believe using drugs or alcohol is not a problem	2.25	1.753	8
Family related risk factors: There are my extended family members who take alcohol and drugs	4.00	.756	8
Family related risk factors: I started using drugs because my brother/sister was using drugs	1.13	.354	8

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Family related risk factors; Our parents were involved in our lives	11.13	11.268	.859	.956	.471
Family related risk factors: Our parents supervised and guided activities and relationships	10.38	10.839	.813	.969	.490
Family related risk factors: I started using drugs because my parents were using alcohol or drugs	11.88	23.554	-.073	.904	.741
Family related risk factors: In our family, we believe using drugs or alcohol is not a problem	10.75	10.500	.868	.974	.459
Family related risk factors: There are my extended family members who take alcohol and drugs	9.00	23.143	-.039	.231	.756
Family related risk factors: I started using drugs because my brother/sister was using drugs	11.88	24.125	-.237	.665	.753

CONSTRUCT D: CHANGE AND ADAPTATIONS

Reliability Statistics

Cronbach's Alpha	N of Items
.717	7

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Since the problem began, there has been changes in family leadership	17.86	29.810	.525	.	.658
Since the problem began, there has been changes in family roles	16.71	29.571	.721	.	.614
Since the problem began, there has been changes in family rules	16.43	30.286	.545	.	.653
The family has been able to accommodate the changes that have come with the problem	18.14	37.810	.153	.	.744
The family has remained stable despite alcohol and substance	18.14	32.143	.687	.	.638
The family members react with anger and hostility to me due to my alcohol and drug problem	17.29	35.238	.195	.	.749
The family has been participating in the treatment and recovery problem of the patient	16.29	33.905	.333	.	.708

CONSTRUCT E: FAMILY COHESION

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.829	.875	11

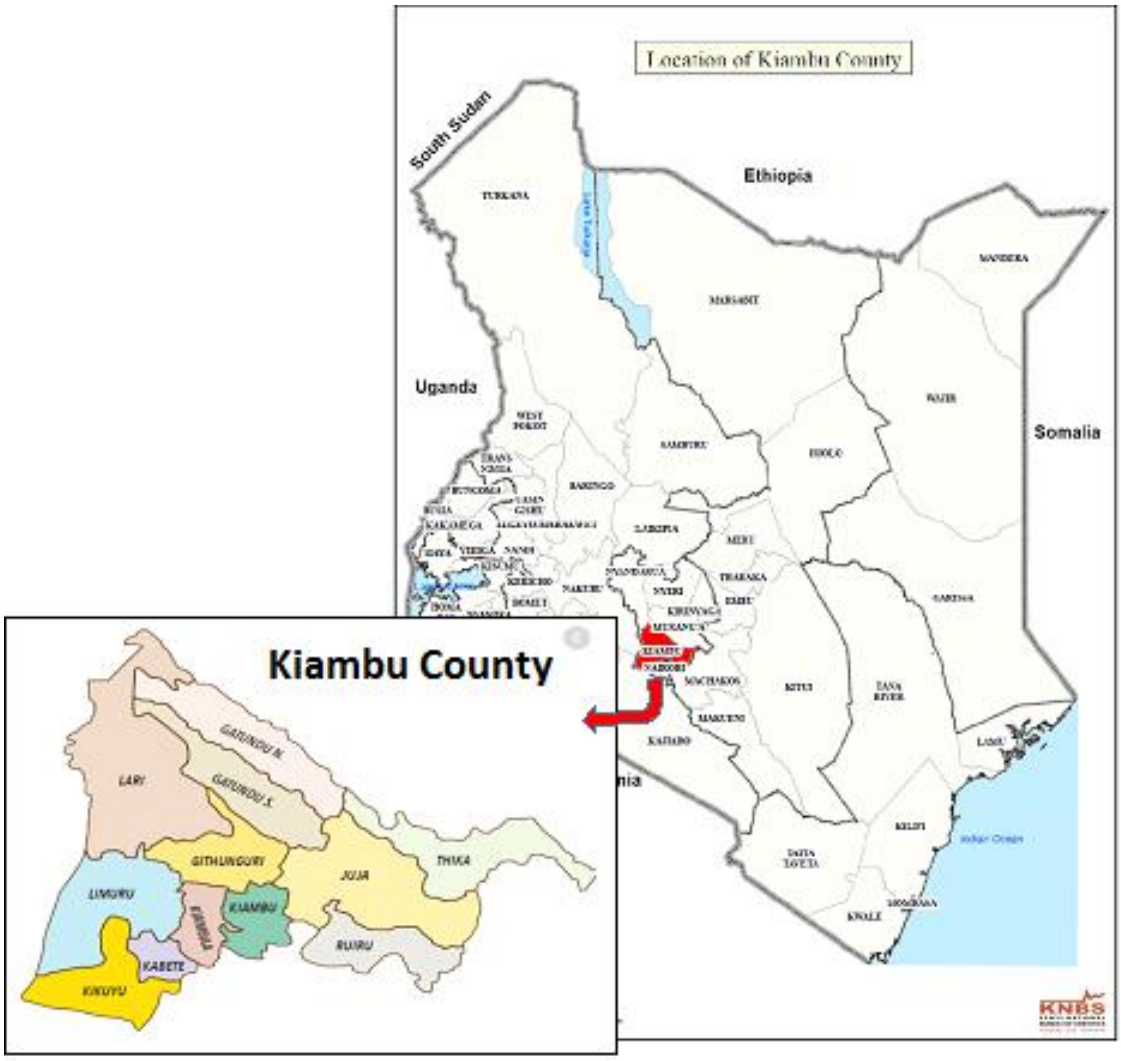
Item Statistics

	Mean	Std. Deviation	N
Our family care for each other	4.75	.463	8
In our family we have regular joint family activities	4.00	1.069	8
In our family, we support each other during difficult times	4.38	1.188	8
In our family, we feel very close to each other	4.38	1.188	8
In our family, we rarely do things together	4.25	1.165	8
Family members are on their own when a problem arises and needs to be solved	3.50	1.690	8
In our family, we have to consult each other always	3.75	1.488	8
In our family, family members do not need the help of outsiders	2.50	1.690	8
When we decide to do something in our family, it is difficult to change	2.88	1.458	8
Our family is very organised in everything	3.00	1.512	8
We never seem to get organised in our family	4.25	1.165	8

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Our family care for each other	36.88	70.982	.870	.	.813
In our family we have regular joint family activities	37.63	63.982	.752	.	.797
In our family, we support each other during difficult times	37.25	61.357	.818	.	.788
In our family, we feel very close to each other	37.25	61.357	.818	.	.788
In our family, we rarely do things together	37.38	63.411	.712	.	.798
Family members are on their own when a problem arises and needs to be solved	38.13	65.268	.361	.	.832
In our family, we have to consult each other always	37.88	57.554	.807	.	.783
In our family, family members do not need the help of outsiders	39.13	71.554	.125	.	.857
When we decide to do something in our family, it is difficult to change	38.75	84.500	-.322	.	.886
Our family is very organized in everything	38.63	57.696	.784	.	.785
We never seem to get organized in our family	37.38	63.411	.712	.	.798

APPENDIX VI: MAP OF KIAMBU COUNTY DIVISION BY SUB-COUNTIES



Source: Adapted from Kiambu County Annual development plan 2017/2018

APPENDIX VII: NACOSTI PERMIT

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **564772**

Date of Issue: **02/March/2021**

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