PREVALENCE AND PATTERNS OF PSYCHOACTIVE SUBSTANCE USE AMONG SOMALI YOUTH LIVING IN EASTLEIGH, IN NAIROBI, KENYA

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DECLARATION

Student Declaration

I declare that this research thesis is my own work and has not been presented in any other university.

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PHT-3-3661-3/2015

Approval by Supervisors

We confirm that the candidate under our supervision carried out the work reported in this thesis.

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DEDICATION

I dedicate this research thesis to my family.

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ABREVIATIONS

CNS	The Central Nervous System
IDPs	Internal Displaced Persons
LCD	Lysergic diethylamide
LMICs	Lowand Middle-Income Countries
MMWR	Mortality and Morbidity Weekly Reports
NACADA	The National Authority for Campaign Against Drugs and Alcohol
PTSD	Post-Traumatic Stress Disorder
UK	United Kingdom
UN	United Nations
US	United States
WHO	World Health Organization

ABSTRACT

The usage of psychoactive substances is on the rise in many communities, particularly among the youth, and is having detrimental effects on people's health, leading to millions of deaths annually. According to a report by National Authority for the Campaign Against Alcohol and Drug Abuse (NACADA) in 2004, the use of substances like alcohol, tobacco, marijuana, khat, and inhalants such as glue was widespread among young people between the ages of 10 and 24 in Kenya. Although the use of psychoactive substances leads to significant social and public health problems, the extent of the issue in sub-Saharan Africa is yet to be determined. This study aims to establish the prevalence and patterns of psychoactive substance use, as well as the demographic characteristics associated with its use, among the Somali community residing in Eastleigh, Nairobi, Kenya. This study was a cross-sectional survey study among consenting youth living in Easleigh North. Data is presented both in descriptive and inferential statistics. The sampled three areas in Eastleigh, known for drug abuse concerns, among sampled 270 households, out of a total of 9,408 households, aiming to interview one person per household. Data collection involved trained interviewers using questionnaires to inquire about demographics and drug use, focusing on the past 12 months. The study also utilized focus group discussions with youth aged 18 to 25, visiting sampled households for this purpose. Data collected was analyzed using SPSS version 23 to provide descriptive statistics, presented in tables and graphs illustrating psychotropic drug use categories, and significant consumption patterns were identified through t-chi-square tests based on demographic and environmental factors.This study found that 75% of youth use at least one psychoactive substance, miraa was the highest used Illicit substance (47.9%), while cannabis was the highest illicit used substances (23.9%) and prescription medication was found to be 10.3% use. Onset of all psychoactive substances was below 18 years of age. Comorbid use varied between Illicit psychoactive, (32.0% to 73.5%); illicit psychoactive substances (9.8% to 100%), Illicit substances and prescription medication (11.8% to 22.7%) and illicit substances and prescription medication (26.7% to 100%). 66.% reported reason for use to be peer pressure. Contributing factors to psychoactive substance use were other family members use (p=0.000), living conditions (p=0.003), family income (p=0.014) and gender (p=0.044). This recommends that policy makers for advocacy, sensitization, provision of appropriate treatment programs, and review training for public health workers. Recommendations for public health workers include the establishment of programs for preventions, treatment and databank, networks and linkages for referrals that incorporate other partners in mental health that include psychoactive substances

CHAPTER ONE

INTRODUCTION

1.1 Introduction

The use of psychoactive substances, including licit, illicit, and prescribed medications, is becoming increasingly common among youth in many communities. This trend has serious consequences for public health, resulting in the deaths of millions of people each year (World Health Organization [WHO], 2013a; Rehm et al., 2003). Examples of licit and controlled substances include alcohol, cigarettes, and khat, while illicit substances include marijuana, cocaine, heroin, LCD, crack, and ecstasy. Prescription drugs such as stimulants, amphetamines, benzodiazepines, hallucinogens, ketamine, and nonmedical prescription drugs are also used (United Nations Office on Drugs and Crime [UNODC], 2014). Psychoactive substance use is a leading cause of death, surpassing even deadly communicable diseases. Prolonged use of these substances is associated not only with disease and death but also with addiction, dependence, and an increased risk of criminal and antisocial behaviour (WHO, 2013)

NACADA was established by an act of Parliament in Kenya on 24thof July 2013 with the aim of focusing on demand reduction that provides preventive education, public awareness, life skill treatment, rehabilitation and psychosocial support to the public. In a standard newspaper, dated 16 June 2013, it was reported that there were high rates of psychoactive substance use among the youth in Kenya. The National Authority for Campaign against Alcohol and Drugs (NACADA) was requested by the president to

formulate measures to curb psychoactive substance use, and the National Treasury to allocate more funds on the same to NACADA.

According to a report by National Authority for Campaign against Alcohol and Drugs (NACADA, 2014), the use of psychoactive substances among young people aged 10 to 24 years in Kenya was widespread. The most commonly abused substances were found to be alcohol, tobacco, marijuana, khat, and inhalants such as glue. Additionally, other substances like amphetamines, barbiturates, cocaine, codeine, rohypnol, and Valium were also being abused. Studies have demonstrated that the use of these substances by young people is linked to unintended injuries, suicide, interpersonal violence, and unplanned sexual activity. The latter increases the risk of unwanted pregnancies, sexually transmitted infections, and HIV/AIDS.

NACADA's report indicates that during a four-day conference, a large number of young people were found to be misusing psychoactive substances, which could have adverse effects on their health and impact socio-economic and political interventions if not addressed immediately. Moreover, subsequent reports from NACADA identified the emergence of new drugs in Nairobi and Mombasa, among which shisha is one of the most commonly used psychoactive substances due to its quick-acting effects. These new psychoactive substances are reportedly being consumed in combination with other drugs, such as alcohol and prescription medication.

1.2 Background

Eastleigh is a Nairobi suburb situated to the east of the Central Business District (CBD) and is mainly inhabited by Somali immigrants. It has earned the nicknames "Little

Mogadishu" and "a country within a country" due to its strong business sector, which operates independently of the rest of the country's economy.

Back in 1921, the Kenyan colonial government assigned residential estates in Nairobi based on race, and Eastleigh was designated for Asians and affluent Africans who held jobs as clerks, builders, and shoemakers. The first group of Somalis who came to Nairobi served as escorts and guards for British Empire builders such as Lord Dalamere and Lord Lugard, while a small number arrived to work for the Kenya Uganda Railway. Eastleigh remained a large residential area for Kenyan Asians until the country gained independence in 1963.Later and more recently, exclusively Somali immigrants have dominated the suburb. Eastleigh was called Kampi Somali till the 1930s when the name-changed after the arrival of the Royal Air force. Most of the militants in this force came from a town called Eastleigh in Hampshire in England.

Eastleigh suburb, located in the Nairobi Pumwani division, comprises Eastleigh North and Eastleigh South, which are divided into three sections. Section I runs from Juja Road, Section II is the commercial center, and Section III is situated towards Jogoo Road. The suburb is adjacent to the Eastleigh Airport (Moi Airbase) to the north, and it has experienced several terrorist attacks linked to the Al-Shabaab militant group, which was launched in response to the deployment of Kenyan troops in Southern Somalia.

The Somali community makes up the majority of Eastleigh's population, with a few Ethiopian, Eritrean, and indigenous residents. The commercial center is dominated by Somali-owned businesses, and in 2012 alone, the Somali community contributed over KES 1.5 billion and accounted for around 25% of the Nairobi city council's tax

revenue. Eastleigh's businesses range from small stalls to large malls and night lodges, many of which have Somali names. The suburb sells imported goods, such as designer clothes, jewellery, and guns, which mainly come from Mogadishu and Dubai. Eastleigh also has advanced communication facilities and has undergone a significant economic transformation in the past two decades, becoming a major East African commercial zone.

Eastleigh is a home for Somalis from Southern Somalia and refugees from the diaspora, and it has become a hub for arranged marriages. Diaspora Somalis often stopover in Eastleigh to visit Somalia or invest in businesses. The suburb has also become a place for young people from the West to spend time with relatives for culture rehabilitation, including learning the Koran.

The population of this suburb grew rapidly especially after refugees begun pouring from Somalia in the late 1980s, that has since put pressure on available facilities. Eastleigh North has a total population of 43.258, in 9,408 households, with male being 23,034 that live in 0.9 square kilometers; a density of 49, 286, Bureau of Statistics reports. This population is made up of more young people than older people are.

Mental health problems have been indicated to be higher in individuals who are refugees, immigrants or displaced persons and use psychoactive substances than the general population. Amosu et al. (2016) in a study of psychoactive substance use among the refugees with a mean age of 26.6 years of age, in Nigerian camp found out that alcohol, tobacco and cannabis use was 24.8%, 15.2% and 6.7% respectively and was higher than that of the general population. This high rate of psychoactive use was also strongly associated with mental health problems. In addition, other studies have

shown that young people of refugee background are at a higher risk to developing mental health and alcohol and psychoactive substance use disorders. Comorbidities of psychoactive substance use and mental illness among young refugee are at higher risk based on cultural and language barriers they may be experiencing.

The bulk of mental health studies concerning refugees, immigrants, and displaced individuals have primarily concentrated on determining the prevalence of Post-Traumatic Stress Disorder (PTSD) and other mental health conditions. However, there has been inadequate attention given to the use of psychoactive substances as a contributing factor to mental health issues, as well as their consequences, according to Lai (2014). In the United Kingdom (UK), Bhui et al. (2003) found that mental health problems were linked to the consumption of khat among Somali immigrants. Furthermore, Somali refugees of between ages 11-20years of age in the United States have been found with PTSD, and depressive symptoms (Ellis et al., 2008). Similarly, Somali male immigrant patients' seen in a mental health unit, who were below 30 years of age, in Minnesota, showed that 80% presented with psychoses compared to non-Somali immigrants of the same age group that recorded a lower rate of 13.7%.

Khat use among communities to the horn of Africa (Somalia, Ethiopia, Eritrea and Northern parts of Kenya) are known to use khat for religious, socio-cultural and functional benefits, but those with defined problematic use have been found to also have impaired mental health, social and occupational problems (Mihretu et al., 2017a). Khat users among the Somali Community in Nairobi Eastleigh have been found to have high rates of PTSD, depression, and psychotic symptoms too, compared to non-users. In addiction males in war torn Somalia, PTSD, has also been identified among

males in war torn Somalia. Widmann et al. (2014) discovered that a large percentage of khat users in Kenya experience multiple health problems, with 51% being burdened with depression, 22% with PTSD, and 22% with khat-related psychotic symptoms. In addition, among young refugees globally, the use of psychoactive substances and the subsequent occurrence of mental health issues appears to be more prevalent than in the general population. For instance, Amosu et al. (2016) conducted a study among refugee youth, who had an average age of 26.6 years, and found that alcohol, tobacco, and cannabis were used at rates of 24.8%, 15.2%, and 6.7%, respectively, and were linked to mental health problems.

There is a gap in understanding Somali Community living in urban Kenya, on the prevalence of psychoactive substance use and patterns of use among the youth. This concern arises from above studies from other areas among people who use khat and have been identifies with the use of other psychoactive substances as well. This knowledge will help in the development of public health prevention interventions that target bot mental health and psychoactive substance use disorders to promote well-being. This study therefore aims to determine and document prevalence of illicit, Illicit and prescribed medications among the youth and patterns of use based on demographic characteristics of the population.

1.3 Statement of the Problem

Adolescent and young adulthood is a very crucial period to establish foundations of life, (Sawyer et al., 2012). Khat use is culturally sanctioned among the Somali Community that is used for religious, socio-cultural and functional benefits, (Mihretu et al., 2017b). Khat users also use at least one other psychoactive substance that

includes alcohol at a rate of 53.9%. This use may lead to impaired mental health, social and occupational performance globally. Somali refugees, immigrants or displaced persons have mental health problems that are related to use of khat and traumatic experiences that they have had in their war-torn country (Bhui et al., 2012)

Eastleigh suburb in Nairobi is made up of refugees, immigrants or displaced persons from Somalia and young men from the diaspora. Studies have found them to have high rates of PTSD, depression, and psychotic symptoms from khat users compared to non-khat users (Widmann et al., 2014). Health studies on refugees, immigrants, and displaced individuals have primarily concentrated on determining the prevalence of PTSD and other mental health disorders. However, these studies have overlooked the correlation between substance use and mental health issues, which can act as both a cause and an effect. According to (Lai, 2014), this link has been neglected. Meanwhile, Temin and Levine (2009) discovered in 2017 that urban Somali refugees in Kenya are exposed to war trauma and daily stressors that increase their vulnerability to both mental health problems and psychoactive substance abuse. The extent of the use of psychoactive substances, including emerging substances like shisha, among the Somali population in Eastleigh, a slum in Kenya, is unknown.

The use of khat, war torn experiences, immigration of young adults to Eastleigh for cultural rehabilitation, living with relatives, and identified high rates of mental health difficulties among this group, put the young people at high risk of using other substances as well. This study therefore aims to fill the gap in knowledge of the prevalence of psychoactive substance use and patterns of use in order to tailor the

findings to the development of public health prevention interventions among the youth.

1.4 Research Questions

i. What is the prevalence of licit substance use among youth living Eastleigh, a Nairobi suburb?
ii. What is the prevalence of illicit substance use among youth living Eastleigh, a Nairobi suburb?
iii. What is the prevalence of prescription medication use among youth living Eastleigh, a Nairobi suburb?
iv. What is the pattern of psychoactive substance use among youth living in Eastleigh, a Nairobi suburb?

1.5 Objectives

1.5.1 General Objective

The objective of this study is to determine the Prevalence and Patterns of Psychoactive Substance Use and it's Associated Demographic Characteristics among Somali Community Living in Eastleigh, in Nairobi, Kenya

1.5.2 Specific Objectives

i. To determine the prevalence of illicit substance use among youth living in Eastleigh, a Nairobi suburb.
ii. To determine the prevalence of illicit substance use among youth living in Eastleigh, a Nairobi suburb.

iii. To determine the prevalence of prescription medication use among youth living in Eastleigh, a Nairobi suburb.

iv. To determine the pattern of psychoactive substance use among youth living in Eastleigh, a Nairobi suburb.

1.6 Justification

In low and middle-income countries (LMICs), mental health and substance use disorders contribute largely to disease burden among young people, as reproductive health and the management of infectious diseases improve, (Erskine et al., 2014). Literature found out that psychoactive substance abuse is common and increasing among young adults in Kenyan refugee urban settings, with new patterns of abuse and emerging new drugs in the market. Interventions and new modalities of prevention have been put forward by NACADA, but these interventions to prevent psychoactive drugs have not been put forward for specific communities.

The young people in Eastleigh belonging to the Somali community who live in a slum context in the city of Nairobi have new drugs and new form of use that is leading them to health, and socio-economic problems. Their patterns of use are not known; therefore, this study aims to determine and document the prevalence and patterns of psychoactive substance use among young people living in this area, with the aim of developing appropriate interventions for the prevention and promoting health.

1.7 Significance

This study is important in that the results would be used by the policy makers to improve on policies used on the prevention and reduction of psychoactive substances

in this community. The public health offices and community health officers in this area will also use the findings in identification and prevention of these substances among the youth who live in Eastleigh.

The community of the Somali living in Eastleigh will get to understand and use the findings in helping curb substance abuse in the community, while other researchers can use the same findings in continued research on the same. They will be able to use the same results in developing research that will identify appropriate interventions for this community in order to prevent ill health and promote health.

1.8 Definition of Terms

Psychoactive Substances: Psychoactive compounds refer to a group of substances that impact mental processes, such as cognition or mood, once they are consumed or administered into one's system. This expression encompasses all types of substances, regardless of whether they are legal or illegal.

Licit substances: Used to describe substances that affect mental processes but are made, sold and used legally.

Illicit Substances: This refers to materials that are subjected to international regulation, but are unlawfully produced, traded, and/or consumed, even though they may or may not have illicit medical applications.

Prescribed Medications: A pharmaceutical substance that legally requires a medical **prescription** to be dispensed.

CHAPTER TWO

LITERATRUE REVIEW

2.1 Introduction

This study will discuss findings of prevalence and patterns of use of Licit, illicit and prescription medication use among youth globally.

2.2 Prevalence of Illicit Psychoactive Substance Abuse among Youth

This study will consider illicit psychoactive substances of alcohol, tobacco products, khat and Shisha.

2.2.1 Alcohol

Alcohol is the most used psychoactive substance globally. A study on a 12-month prevalence and trends of alcohol abuse in the United States (US) between 1991 and 2002 indicated that 4.65%individuals abused alcohol with higher rates among younger and more males, (Grant et al., 2014). This trend was increasing with time especially among the young males. Horyniak et al. (2016), in a study of psychoactive substance use among forced migrants (refugees, individual displaced persons (IDPS) and asylum seekers using a global systematic review in high-income settings pointed out that alcohol use was higher (17% to 36%) in camp settings and compared to lower (4-7%) in community settings. In addition, alcohol use trends in South Africa among the youth from 1998 to 2008 has gradually been increasing from20.0% in 1998 to 35% in 2008 with youth risk behaviors increasing and contributing to abuse.

In LMICs, mental health and substance use disorders are a significant contributor to the global burden of disease among young people, especially as reproductive health and infectious disease management improve, according to research by (Erskine et al., 2014). However, a review conducted by Francis et al. in 2014 on alcohol use among young people in Eastern Africa found that prevalence varied widely, ranging from 1.2% in the general population in Ethiopia to 68.9% among male sex workers in Kenya. Another study by Otieno and Ofulla (2009) reported that 57.9% of young people living in Kisumu had consumed alcohol at least once in their lives, with the majority of alcohol abusers being aged between 16-18 years old.

Alcohol is the most abuse mood altering psychoactive substance in Kenya, (NACADA, 2014), with 14% of ages between 15 and 64 current uses, (NACADA, 2007). Several demographic factors have been identified as likely causes that include genetic predisposition, stressors and environmental factors. Another NACADA report in 2012 reported that current use of alcohol stands at about 16.6% among urban dwellers and 11.4% among rural dwellers in Kenya, a decline from the 2007 survey: with Nairobi indicating a higher percentage of usage at 15.7%. The same report also indicates that use of alcohol has effects on the user's appearance, may lead to poisoning, bring in diseases and cancers, mental health disorders and dependence.

2.2.2 Tobacco Products

Tobacco products come in form of cigarettes, cigars, snuff, and smokeless tobacco. NACADA (2012) indicated that tobacco products use stand at 8.6%, with more males' use (16.8%) compared to females use (2.1%); Nairobi second leading in use at 22.5% after Central Province (22.6%). It also reported that tobacco product use has led to

several effects that include respiratory problems, serious ailments that include heart attacks, osteoporosis and impotence, dental problems, loss of smell and taste, hair loss, low sperm count, premature wriggling and infertility among others.

The WHO has approximated about 4 million deaths each year from tobacco use, which is expected to rise to 8.4 million deaths a year by the 2020. In the United States, (Hu et al., 2006), indicated that tobacco use in form of cigarette smoking was very high and rising on daily basis; among the youth that is leading to nicotine dependence among all racial groups. The study found out that Native American youth had the highest abuse of tobacco although cigarette smoking declined sharply among black seniors unlike the whites. In addition, a national survey on prevalence of tobacco use among adults conducted in 2012 from sampled households found 17.6% tobacco users with males (29.2%) four times higher than females (7.3%) (Reddy et al., 2015). Prevalence comparison of tobacco smoking among those aged 15-19 years of age in 2010-2011 and 2013-2014was significantly higher at 3.5% versus 21.8% especially in Poland, (Chapman & Wu, 2014). A study of prevalence of tobacco use among 10th grade students in Istanbul, Turkey reported that 24.4% had used cigarettes and this use was more likely to lead to them using other harder substances such as cocaine and heroin later (Evren et al., 2014).

In a global report on youth between 13-15 years of age, tobacco survey among the youth Maina et al. (2007) pointed out that one in every four students had smoked one of 10 were current smokers, while 12.8% used other forms of tobacco. Abreu et al. (2012), in a study of tobacco smoking in North Africa indicated that prevalence of tobacco smoking ranged between a low of 5.3% in Egypt and a high of 15.3% in

Tunisia among boys while at 1.1% in Egypt and Libya to a high of 2.0% in Morocco and Sudan. Warren et al. (2010) in a tobacco use by youth indicated that in 1999 among 13 countries that were under surveillance of youth between 13-15 years of age had between a high of 33% to a low of 10% tobacco use.

Abreu et al. (2012) found out that cigarette smoking among students in selected countries between 2009-2022 ranged from 3.4%-13.6% in Sub-Saharan countries, with boys having higher prevalence than girls. In addition Haregu et al. (2015) in a study of behavioral risk factors of common non-communicable diseases between 2008-2009 reported that cigarette smoking for urban slum dwellers in Nairobi, Kenya was at 12.4%. In addition, NACADA (2014) reports tobacco use to be at 58.1% in Kenya.

2.2.3 Khat

Khat addiction is associated with significant morbidity and social and economic costs. Consumption of miraa is very low in Europe, while other countries like Ethiopia, Somalia and Kenya tend to use miraa (Griffiths et al., 2010). Odenwald (2010) concludes that 42% of young Somalis living in UK cities use cannabis, more men than women. In Saudi Arabia, men earned 21.4 percent (37.7 percent) more than women (3.8 percent).

There are many studies on the use of miraa in Ethiopia. Among university students in eastern Ethiopia, 24.2% of high school students used khat (Reda et al., 2012). In addition, Malaju and Asale (2013) showed that the infection rate among young people in southwest Ethiopia is 33.3%, and young people go to HIV testing and counseling

centers in Gamo-Gofa. The average age of using miraa is 22 years, between 12-42 years (Tesfaye et al., 2014), who reported that the age of men is older than women.

In another study, 20.4 percent of three occupational groups in southwestern Uganda - managers, porters, and students - were found to use miraa for study or work, although 31.5 percent reported using it. Research also showed that its use is higher in the age group of 16-25 years (Ihunwo et al., 2004). In Kenya, it is expected to be used mainly by young people, especially young workers (Njuguna et al., 2013). However, many users see it as a way of life. Odenwald (2010), showed 17 percent among Kenyan youth. NACADA, 2014 reported that the use of quince among young people in Nairobi and Mombasa reached 62.9%.

2.2.4 Shisha

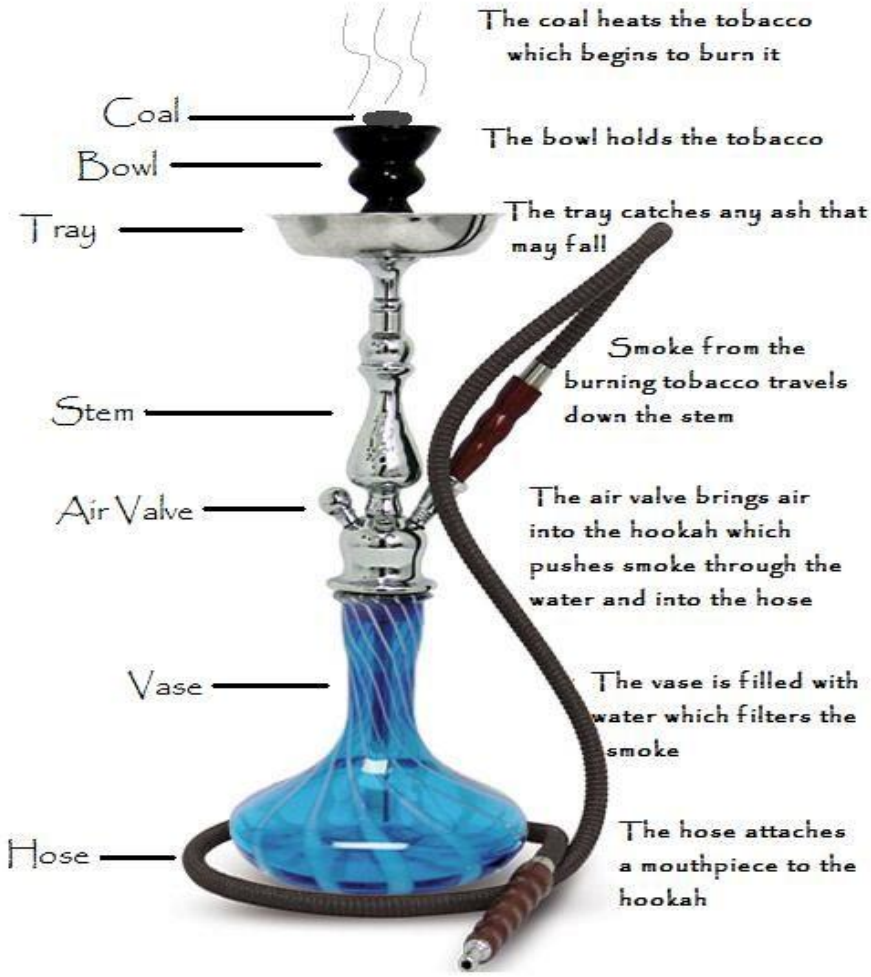
Shisha is a colorless type that smells like flowers. They are removed from the equation with the removal of batteries and chemicals such as oil, shampoo or salt. They are placed in aluminum which burns in a glass tube and smokes. A shot of marijuana travels quickly from the bloodstream to the brain. Smoking a Shisha, or shisha, consists of a water pipe and a barrel. Valves and pipes. Some smoke is lit inside the building, and the smoke leaves the water in the tank before being drawn into the pipe. By using a large pipe, smokers inhale more smoke than a cigarette. Shisha smoking has many side effects. Shisha contains dangerous substances such as chromium, lead and cobalt, which can reduce male fertility and produce bad sperm. It can also cause harmful genetic changes that can affect fertility, and is known to suppress a person's immune system, making them more vulnerable to infection. Heavy metals and toxins

can pass into breast milk and affect the baby. Pregnant women who smoke shisha during pregnancy are at risk of respiratory diseases and the risk of maternal bleeding.

Shisha smoking is a new phenomenon in many parts of Kenya, especially for girls. It has become the main form of entertainment for young people. Shisha smoking is a way of life for some people: socializing and experiencing, meeting new people. Shisha smoking is an event where men meet machismo. Even women these days feel cold (Chaouachi, 2007).

Figure 2.1

Picture of Shisha pipe showing its parts and how it works



Studies have pointed out that shisha use is perceived not as health risk and is socially accepted Daniels and Roman (2013), among many communities compared to cigarette smoking. The youth today are changing tobacco use to adopt shisha that now stands at 10.7% in Southern California, United States, Gilreath et al., (2016) with reported increase nationally. It has been found to have very high rates among school going children and university students in the middle descent in the Western Countries (Akl et al., 2011). Its spread globally is alarming especially among the youth (El-Awa et al., 2010) in the Middle East particularly and has made the rest of the world to catch up with use from immigrations from the Middle East (Warren et al., 2010). Due to these immigrations from the east, to immigrations from the East to the West, college students from Arabian descent in Sydney, Australia are reported to have a shisha use prevalence of 11.4%, while in the UK 8.4%, (Warren et al., 2010).

Adult population ages between 18-40 years of age in the Unites States use shisha with a prevalence rate of 3.9%, Grinberg et al.(2016), while in Great Britain is at 11.6%, with an increased use being among those of ages between 18-24 years, with more Asian users (Grant et al., 2014). In Florida, in the Unites States, shisha use among young adults stand at 8%, but more among the males, but increasing faster among female students and high school students. Adolescence in the United States, have been found to use shisha with a prevalence of 4.8% according to (Amrock et al., 2014). Mobility and mortality weekly reports (MMWR) in the United States, 2013, reports that students in the middle and high school between 2011-2012 had increases Shisha use from 4.1% to 5.4%, a very high increase of 32% in a very short time. In addition,

another MMWR report, 2014 by Corey et al. (2015), on middle high school students in the USA, indicated that about 60% had used shisha at some time. However, Minaker et al. (2015) indicated only about 30% of college students had used shisha. Canada reports lower prevalence use of shisha among youths of grades 9-12 to be at 5.4%, but with 14.3% trials. There was almost no study found on shisha use in African countries and Kenya.

2.3 Prevalence of illicit Psychoactive Substance Abuse among the Youth

2.3.1 Marijuana

Marijuana, also known as mamba, is grown as a crop in Kenya, especially in the highlands. Cannabis is widely used in Kenya about 1.2% (NACADA, 2012). Some of the effects that NACADA (2014) knows, include the effects of the central nervous system (including the perception of time, distance and movement), the respiratory system, the hormonal system (which produces testosterone in men), due to defects congenital because it interferes with chromosomes and immunosuppression.

Cannabis users are more likely to use other psychoactive substances among US youth Marijuana is now the most widely used drug in the world, with 12 percent of youth age 12 and older in the United States using it. In a survey conducted in five cities in the world (Baltimore, Shanghai, Johannesburg, Ibadan and Delhi), the prevalence of cannabis among young people was 17.9%.

Analyzes of cannabis and tobacco from 1999 to 2009 have shown how these substances work around the world (Abreu et al., 2012). The probability of using marijuana among high school graduates is 18.8%, data collected from students of 9-

12 years 2010-2011. Among high school students in New Bahamas, 7.2% of boys and 1.7% of girls reported smoking marijuana. A study in France by Redonnet et al. (2012). Applicable to adults aged 22-35. Cannabis 18.9% and 6.3% have a problem using it. Among patients aged 15-24 years, 58% of women reported using marijuana at least two weeks prior to hospitalization. NACADA in 2014 reported that marijuana use among Kenyan youth is 50.3 percent.

2.3.2 Heroin

Heroin is a powder obtained from the dried "milk" of opium, it is usually a white powder, but when extracted it turns into sugar. The most common use is the injection, although some users smoke cigarettes, releasing vapor when lit on a cigarette or other substance.

Heroin use in the United States increased from 1.6 per 1,000 people aged 12 and older in 2002-2004 to 2.6 per 1,000 in 2011-2014 (Jones et al., 2015). Another development from medical heroin to non-medical heroin. Although this study was not related to NACADA, they reported in 2014 that 0.1% of young people in Kenya use heroin.

2.3.3 Cocaine

Chew or inhale from coca leaves. It is a Schedule II drug that has a high potential for abuse, but doctors may prescribe it to relieve pain, such as during ear, eye, and neck surgery (Goldstein et al., 2009). When abused, it looks like a fine powder known as coke, sawdust, flour, flour or powder. It can also be mixed with non-psychological substances such as corn, starch, flour, soda, etc. Cocaine can be combined with other

psychoactive substances such as procaine (analgesic) or amphetamine (another stimulant). The level of cocaine is now 01. % in Kenya (NACADA, 2014).

Other short-term effects of cocaine include euphoria, energy, speech, mental alertness, and sensitivity to sight, sound, and touch. Long-term effects include heart problems. Gastrointestinal problems include nausea, abdominal pain, and cramping. Mixing cocaine with alcohol is known to be very dangerous and mixing heroin leads to heroin addiction because cocaine enters the bloodstream quickly (Goldstein et al., 2009).

A 2012 study of young people by Mutiso et al. (2012) reported that drug use was 8.9%. Another study in Kisumu, western Kenya, showed a 5.2 percent prevalence of cocaine use among school-aged youth.

2.3.4 Inhalants

Breathing is a mixture of liquids, aerosols, gases and nitrites. It is used in the nose or mouth. People of different ages use different inhalers. Young people under the age of 15 often use glue, shoe polish, drugs, petrol and fresh water. Inhaled drugs pass through the lungs into the bloodstream and are distributed to the brain and organs. After a few seconds of inhalation, the user experiences intoxication and other effects similar to those caused by alcohol. Effects of alcohol can include slurred speech. Failure to coordinate movement. Happiness is happiness. In addition, users can see displays, illusions, and visualizations (Hall et al., 2010).

Because this product only takes a few minutes, users often try to copy more in hours, a very dangerous practice. Through several breaths, the bully may collapse and die. At least they will feel restricted and out of control. After heavy use, the user may

experience sleepiness and headaches. Many mental processes can be involved in increasing the absorption of various drugs, medicines, and inhalation. Almost all inhalants of abuse (except nitrites) produce euphoria by depressing the central nervous system (CNS). On the other hand, nitrite relaxes and relaxes blood vessels rather than pain relievers.

Inhalation several times causes poisoning, with initial relief followed by dizziness, confusion, disorientation and confusion. In a meta-analysis from poor countries, Embleton et al. (2013) showed that 47% of homeless children use inhalers. The growth is between 36.1% and 44.4% depending on the race and their peers (52%), (Howard & Jensen, 1999). In Western Kenya, Kisumu, Otieno and Ofula (2009) said that 5.2% of school children take a break. The people most at risk are those under the age of 16.

2.4 Prevalence of Prescription Medication Abuse among the Youth

This is the misuse of someone else's medication or your medication in a different way or amount than prescribed. Treatment may include lifting weights, treating pain, or helping you learn or improve. The most commonly abused drugs are opioids, such as pain relievers such as OxyContin and Vicodin, antidepressants such as Xanax and Valium, and stimulants such as Concerta and Enteral. Over-the-counter medicines such as cough suppressants; Teens who abuse prescription drugs may report using other drugs. Many studies have shown a link between drug use and heavy smoking. Drinking too much alcohol; and marijuana, cocaine, and drug use among US youth, adults, and college students.

Drug abuse is the fastest growing problem in the United States. In America, it kills more people than heroin and cocaine combined. In the United States, the average age of prescription opioids is reported to be 16.7 years. (68%) and positive (32%), 52.4% were women, 38% suspected suicide (Zosel et al., 2013).

When people continue to use the drug, the brain reacts to the excess dopamine by reducing and/or reducing the response of cells in the reward area. This helps reduce people's discomfort when the drug starts to work, which is called tolerance. They may take other drugs to try to increase dopamine. It also helps them enjoy other things they used to like such as food or entertainment. Medical professionals know how to use behavioral research to support their work. The reason for this is that the results of the study will be important in promoting the quality of ways to prevent pain and disease among people, as well as the future knowledge of the disease and the strength and effectiveness of activities and programs (NACADA, 2014).

2.5 Patterns of Psychoactive Substance Abuse among the Youth

Although alcohol, tobacco, and other substances mentioned above are used in many countries around the world, the way they are used varies from country to country and over time. To avoid health problems during use, forms and methods of use are important. Since the 1980s, the World Health Organization (WHO) has published and updated its epidemic treatment methods. Changing patterns and practices of psychiatric drug use in society presents new challenges for health professionals and program developers. The production and use of psychoactive substances has increased worldwide. In addition, new types of substances have appeared, as an alternative to "crack" cocaine in the administration of these substances, such as the modification of

opium in the injection of heroin, introducing new names and types. Drugs are increasing and growing now. Drug-related problems for example, the use of injection drugs has created a new problem of HIV.

2.6. Social Demographic Characteristics and Psychoactive Substance Use

2.6.1. Age

Psychoactive substances use begins as early as 9 years, with time some even below in some countries. It normally starts with alcohol, the tobacco before the other harder substances.

2.6.2 Gender

Drug use is related to sexual activity in men (Merline et al., 2004). However, research also shows that women's use of certain substances is higher than men's. In addition, boys are more likely to drink alcohol and smoke cigarettes than girls, use marijuana, marijuana and smoke cigarettes when they are adults. Women with higher education and employed are more likely to use psychoactive substances. In addition, men who drank bottled beer reported higher self-esteem, while women who did not drink beer he showed a lot of confidence. In Kenya, Ndetei et al. (2009) found that alcohol (alcohol, wine, and spirits) and tobacco are used as addictive substances as often as tobacco among youth under the age of 11 in school.

2.6.3 Education

Level of education whether in school or out of school predicts drug use in youth. Studies have shown high rates of drug use and smoking among high school seniors, as

well as high rates of binge drinking among truant students. Drug use has a positive effect on dropping out of school. Atilola et al. (2013) found that cannabis use was associated with dropping out of school, but non-users were 2.3 times more likely to drop out. Furthermore, Merline et al. (2004) showed that university graduates do not use psychoactive substances.

2.6.4 Onset

Pattern of onset is similar across genders which begin with alcohol, cigarette smoking before other illicit substances (Kosterman et al., 2000). Neurobehavioral dis-inhibition in childhood, that includes oppositionality, hyperactivity/impulsivity, and inattentiveness at age 11 predicts early age onset of psychoactive substance use at age 14 (Tarter et al., 2003). Furthermore, early initiation of psychoactive substances predicts longer duration, heavy daily consumption, and increased chances of dependency, while early onset of more than one substance has been found to contribute to risk for initiation of subsequent substances (Agrawal et al., 2006). Those who start on illicit substances like cocaine, heroin, MDMA and ecstasy are not more likely to use alcohol, tobacco or marijuana. In addition, those who are more religious at a younger age are more likely to delay on the onset of psychoactive substance use, (Kim-Spoon et al., 2013).

2.6.5 Causes of Use

Several factors have been associated with causes of psychoactive substance use; that include, peer pressure, to gain courage, poor academic performance, availability, exposure to others who uses substances, unemployment, Merline et al., (2004), high

school dropout, Kosterman et al. (2000) non-custodial parenthood, being an only child, divorced parents, high family income, parental use, maternal (Hayatbakhsh et al., 2013.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The purpose of this study is to determine the prevalence and pattern of drug use. Psychology of young people living in rural areas in Nairobi. This chapter discusses the study area, design and population, presentation methods, sample size determination, data collection methods and tools, ethical issues, data management, limitations and failures.

3.2 Study Area

The study area is Section I, Eastleigh suburb, in Pumwani Division, Nairobi City. This area was identified due to the high abuse of psychoactive substances among Somali immigrants, from all over the world, which have high investments in businesses that lead in East and Central Africa.

3.3 Study Design

An exploratory Cross-sectional survey study was be conducted among youth consenting in sampled households in section 1 of Eastleigh suburb.

3.4 Study Population

The Study population were made up of all consenting youth, (18-25years of age) of Somali community leaving in the sampled section of Eastleigh.

3.5 Sampling

3.5.1 Sampling Procedure

The first part covers three parts of Eastleigh. This is because the area is thought to be prone to drug abuse. A sample of 270 households, including Somali youth, was conducted in 9,408 households, with the aim of interviewing one person per household.

3.5.2 Sample Size Determination

Sample size was determined using the method developed by Leslie in 1965. The main method takes into account the confidence interval (Z α/2), the margin of error (e) and the sample size of the desired product. The sample size is calculated as follows:

$$n = \frac{Z^2 p\, q}{e^2}$$

Where;

- z = standard variant at a given confidence interval
- p = sample proportion of the population with the desired characteristics
- q = (1- p) sample proportion of the population who do not have the desired characteristics
- d = precision error of margin
- n = sample population.

Therefore, in this study:

- z = 1.96 at 95% confidence level
- p = 0.198 (19.8%) the proportion of population that abuse Illicit substance

q = 0.702 which is derived from 1-0.198

e = an error margin of 5%

$$n = \frac{1.96^2 \ 0.5 \text{ x } 0.5}{0.05^2} = 245 \ (244.01)$$

Therefore, the sample size n = 245

3.6 Methods and Tools for Data Collection

3.6.1 Tools for Data Collection

Questionnaires for the researcher were used to collect data. These questions were used by trained interviewers and research assistants. The instrument asked participants about demographics, drug use, and drug use in the past 12 months.

3.6.2 Methods of Collection

This study was a survey that will collect data using a qualitative questionnaire and focus group discussion. The researcher visited sampled households and present the questionnaires to the youth aged 18 to 25 years of age.

3.7 Ethical Issues

After the Department of Health at Kenya Methodist University, the Department of Human Nutrition and Nutrition approved the study, the Ethics Committee of Kenya Methodist University issued a research protocol regarding personal data, which was strictly followed to ensure confidentiality and Informed Consent In accordance with this consent, the researcher obtained permission from the Ministry of Education (Ministry of Education) and Nairobi City Government (Pumwani Division) before collecting data.

The researcher explained the purpose, structure and importance of the study for city management. The confidentiality of the participants was explained before collecting the data using the questionnaire. A letter explaining the purpose of the study and its results was given to the participants during data collection to ensure their consent. Participants were told that their information would be confidential, that no names or numbers would be written on the questionnaire, and that the results would be reported as a group. They were also informed that participation was voluntary, free of charge, and that they could stop the study at any time without penalty. They were also told that those who may need help using drugs can contact the researcher or the study director on these two numbers.

3.8 Data Quality Control (Validity and Reliability)

Questionnaire was previously tested for validity and reliability in Laini Saba,Kibera township. Review what you've already tried to see how it works.

3.9 Data Management Procedures

Collected data was put in a sealed box, later stored in a computer, analyzed, presented and a discussion and recommendation of the results was done.

3.9.1 Data Cleaning and Entry

After data was collected, it was checked and coded accordingly. Data entry templates were developed for the data entry. All data collecting instruments were keyed into the **SPSS** Entry Builder.

3.9.2 Data Analysis

The collected data were stored on the computer and analyzed using SPSS version 23 to provide descriptive and useful statistics to answer the research question. Descriptive statistics are presented in tables and graphs to show categories and types of psychotropic drug use. A t-chi-square test for non-significant statistics was used to identify significant patterns of consumption based on demographic and environmental factors.

3.9.3 Data Presentation

The analyzed data is presented using frequencies, tables, histograms, descriptions, and inferential statistics.

3.10 Limitations and Delimitations

3.10.1 Limitations

i. This study deals with substance use of licit, illicit and prescription psychoactive substance drugs and the consenting youth may only report what the researcher may want to hear.
ii. This study only covered Eastleigh north (Section 1) and this may not be generalized to other Somali Community members who live outside Eastleigh.

3.10.2 Delimitations

i. This study used other youth to assist in identifying homesteads with youth and substance use dens and this may encourage the participants to report the near truth of the substance use.

ii. It also used Somali youth living in the area not familiar to the youth in study, and this may encourage participants to report what could be the truth.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

The purpose of this study was to ascertain the frequency and patterns of psychoactive drug use among the Somali adolescent community residing in Nairobi's Eastleigh area, as well as the related demographic factors. 245 individuals were sampled for this study, and 213 of them managed to finish it, for a high return rate of 86.94%.

The fact that both the local administration and the participants were properly sensitized is what caused this study's high return rate of 86.94%. Additionally, the research assistants were well-versed in the region and had no trouble finding the subjects. Other studies among college students have also reported high return rates, including Ongeri et al. (2019) (87.7%), and Ndetei et al. (2009) (two studies), which recorded a high return rate of 100%. In this research, men outnumbered women by 58.2%, which has been explained by the notion that Muslim women in this community, in particular, may be more prone to stay home than men.

4.2 Characteristics of Participants

4.2.1 Socio Demographic Characteristics

Table 4.1

Social demographic characteristics of participants

Social Demographic Characteristics		n	%-age
Age in years	18-19	52	24.4%
	20-21	38	17.8%
	22-23	51	23.9%
	24-25	72	33.8%
Gender	Male	124	58.2%
	Female	88	41.3%
	Other	1	.5%
Marital status?	Married	55	25.8%
	Single	140	65.7%
	Divorced	13	6.1%
	Separated	4	1.9%
	Widowed	0	0.0%
	Other	1	.5%
Highest level of education attained	Primary and Below	52	24.4%
	Secondary Education	80	37.6%
	Middle College Education	15	7.0%
	Certificate	26	12.2%
	Diploma	33	15.5%
	Undergraduate Education	2	.9%
	Postgraduate	5	2.3%

The majority of participants (33.8%) were between the ages of 24 and 25, then came those between the ages of 18 and 19 (24.4%), those between the ages of 22 and 23, and those between the ages of 20 and 21 (17.8%). The majority, or 58.2%, were men. 65.7% of people were single, 25.8% were married, and 1.9% were separated. The most advanced level of education reported by 37.6% of respondents was secondary school, followed by primary and lower education (24.45%), diploma (15.5%), certificate

(12.2%), and middle college (7.0%), while postgraduate and college degree levels of education were 2.3% and 0.9%, respectively.

4.2.2 Family and Individual Social Economic Background

Table 4.2

Family and individual socio-economic background

Family and Individual Socio-Economic Background		N	%
Occupation	Self employed	20	9.4%
	Business	11	5.2%
	Employed	40	18.8%
	Unemployed	91	42.7%
	Student	51	23.9%
Living Conditions	I live with my parents	74	34.7%
	I live with relatives	26	12.2%
	I live with friends	17	8.0%
	I live alone	22	10.3%
	I live with parents and other relatives	21	9.9%
	I live with spouse/partner	40	18.8%
	Other	13	6.1%
Family income?	Very High	2	.9%
	High	16	7.5%
	Moderate	151	70.9%
	Low	28	13.1%
	Very Low	11	5.2%
	I do not know	5	2.3%
Parents married?	No	70	32.9%
	Yes	143	67.1%
Born in Eastleigh	No	92	43.2%
	Yes	121	56.8%

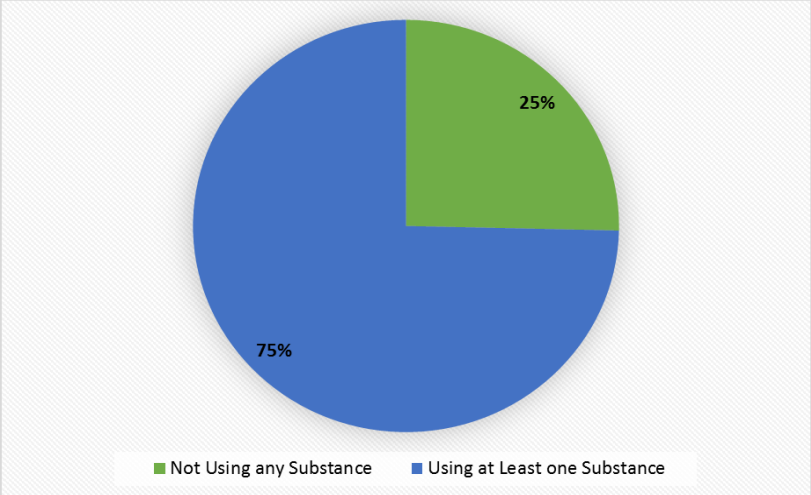
In this research, it was determined if individuals were born in Eastleigh or somewhere else, as well as the parents' jobs, living situations, family income, and marital status. The majority (42.7%) of people were jobless, compared to students (23.9%), workers (18.8%), self-employed (9.4%), and company owners (5.2%), who made up the

remaining percentages. The majority of people (34,7%) are said to live with their parents, followed by 12.2% who live with other relatives, 10.3% who live alone, 9.9% who live with their parents and other relatives, and 8.0% who live with friends. 70.9% of respondents said their families made a modest income. While 56.8% of respondents claimed to have been born in Eastleigh, 67.1% had married parents.4.3 Prevalence of Psychoactive Substance Use among Participants

4.3. Use of at least one Substance

Figure 4.1

Those using at least one Substance



75% of the respondents stated that they are currently using at least one of the substances.

This study found out that there was a high (75%) current psychoactive substance use among the participants, using at least one psychoactive substance. This result is comparable with what was reported by (Tesfaye et al., 2014) among university

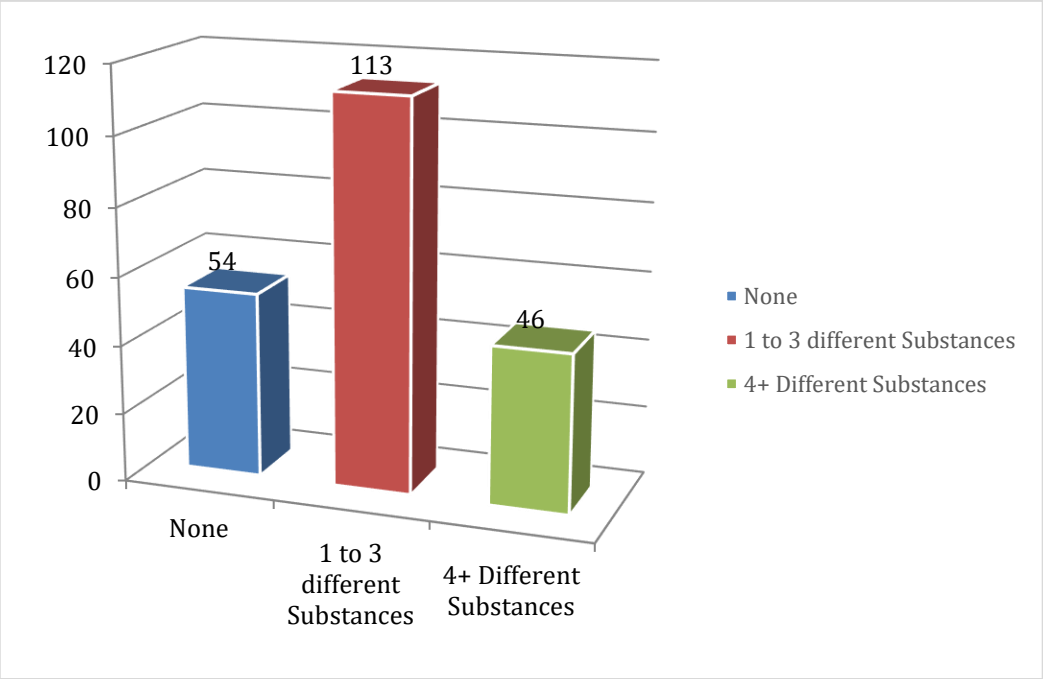
students in Ethiopia, where they found out a high psychoactive substance use of at least one substance at 62.4%.

Report by NACADA indicated that individuals between the ages 10 to 24 years of age abused psychoactive substances in Kenya rampantly. A study among secondary school students in Nigeria, Oshodi et al. (2010) reported that 85.7% used psychoactive stimulants with a current use of 56.5%. In addition, Kim-Spoon et al. (2013) found out that alcohol consumption among the youth in Tokorni-Hohoe in the Volta Region of Ghana was as high as 43%. Consequently, a meta-analysis of substance use study from 22 countries, Embleton et al. (2013), reported an overall psychoactive substance use at 60%.

4.3.2 Number of Substances Used

Figure 4.2

Number of Psychoactive Substances used per Participant



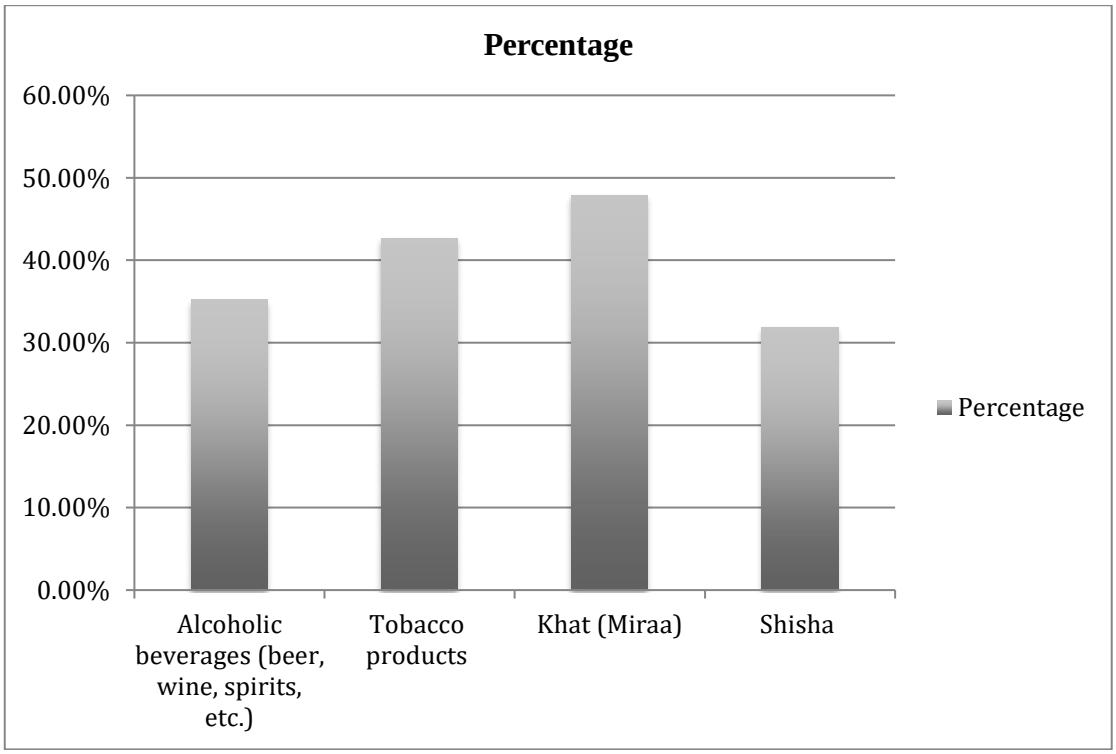
The study indicated that the majority, 113 (53%) use at least one to three different substances while 54 (25%) and 46 (46%) use none or four different substances.

These participants indicated Polysubstance use to be common. This is similar with other findings globally among the youth, Olthuis et al. (2013) reported that most university students initially started using alcohol and later to other psychoactive substances.

4.4 Prevalence of Illicit Psychoactive Substance Use

Figure 4.3

Prevalence of Iicit Psychoactive Substance Use



In the use of Illicit substances, the majority reported to use khat (miraa), 47.9%, while 42.7%, 35.2%, and 31.9% used tobacco products, alcoholic beverages, and shisha respectively.

This study categorized, alcohol, tobacco, mirra and shisha as Illicit drugs because this country does allow the use of them legally. This study found higher khat prevalence, 47.90% compared to tobacco, (42.7%,) alcohol, (35.20% and shisha, 31.9%. Higher khat use is expected among this population being of Somali origin that use khat more than the other psychoactive substances. This is similar with other studies which reported that alcohol was the first psychoactive substance used before other substances are introduced.

4.4.1 Alcoholic Use per Socio-Demographic Characteristics

Table 4.3

Prevalence of Alcohol use Based on Demographic Characteristics

		Alcoholic beverages	
Demographic Characteristics		**n**	**%**
Age	18-19	20	38.5%
	20-21	13	34.2%
	22-23	16	31.4%
	24-25	26	36.1%
Gender	Male	52	41.9%
	Female	23	26.1%
Highest level of education completed	Primary and below	29	55.8%
	Secondary Education	16	20.0%
	Middle College Education	7	46.7%
	Certificate	9	34.6%
	Diploma	10	30.3%

	Undergraduate Education and above	4	57.1%
Marital status	Married	15	27.3%
	Single	55	39.3%
	Divorced	4	30.8%
	Separated	0	0.0%
	Widowed	0	0.0%
	Other	1	100.0%
Born in Eastleigh	No	31	33.7%
	Yes	44	36.4%

The highest (38.5%) alcohol use is among those between the ages of 18 to 19, while the lowest (31.4%) are those between the ages of 22 to 23. Based on gender, more males (41.9%) compared to females, (26.1%). Those with undergraduate and above, primary and below and middle college education had the highest prevalence, 57.1%, 55.8% and 46.7% respectively; while the lowest prevalence was among those with secondary education, 20.0%. Based on marital status, higher prevalence was indicated among the single (39.3%) and the divorced (30.8%). This born in Eastleigh had higher prevalence of 36.4%, compared to those born elsewhere, 33.7%.

Alcohol use was found to be at 35.2% among these participants. This is similar to other studies globally and regionally. A meta-analysis of 56 papers in East Africa region shows prevalence of alcohol use among youth of between 14 – 24 years of age, indicated high among university students (52-82%) and secondary students (23-56%) compared to the general population which stood at 17-56%; while lower prevalence among primary school children at 26-30%. This report is much higher than the NACADA (2012) report of the youth that found that Nairobi dwellers alcohol usage was at 15.7%.

4.4.2 Tobacco Use Per Socio-demographic Characteristics

Table 4.4

Prevalence of Tobacco use Based on Demographic Characteristics

Demographic Characteristics		Tobacco products	
		n	%
Age	18-19	19	36.5%
	20-21	19	50.0%
	22-23	21	41.2%
	24-25	32	44.4%
Gender	Male	64	51.6%
	Female	26	29.5%
Highest level of education completed	Primary and Below	31	59.6%
	Secondary Education	35	43.8%
	Middle College Education	5	33.3%
	Certificate	8	30.8%
	Diploma	11	33.3%
	Undergraduate Education	1	14.3%
Marital status	Married	17	30.9%
	Single	64	45.7%
	Divorced	6	46.2%
	Separated	3	75.0%
	Widowed	0	0.0%
	Other	1	100.0%
Born in Eastleigh	No	31	33.7%
	Yes	60	49.6%

Use of tobacco based on age, had minimal differences, although the highest users were between the ages of 20-21 while the lowest was between the ages of 18 -18 years of age. Males were more likely to use tobacco, (51.6%) than the females, (29.5%). Lower educational level was a predictor of tobacco use; those with primary and below education level of education indicated a 59.6% use, while those with undergraduate

and above level of education, had a 14.3% use. Higher tobacco use was reported among the separated (75.0%), the divorced (46.2%) and the single (45.7%), while the married reported the lowest at 30.9%. Those born outside Eastleigh have higher prevalence, (49.6%) compared to those born in Eastleigh, (33.7%).

This study found tobacco products use at 42.7%. This much higher than what other studies reported globally. NACADA report of 2012 indicated that tobacco use stood at 22.5% for Nairobi residents with a more percentage among males, (16.8%) compared to the females (2.1%). (Reddy et al., 2015), reported that South African Adults tobacco use was at 17.6% with male use (29.2%) being four times greater than female use (7.3%). In addition, young people prevalence in Kenya has been reported by WHO to be 4.9% (7.4% for boys and 4.3% for girls. Arrazola et al. (2016) in a study of United States tobacco use among the youth found that although traditional tobacco uses of cigarettes, cigars among others were reducing in use, among middle (3.9%) and high school (13.4%) students between 2011-2014, e-cigarettes, hookers were increasing that lead to no decrease of tobacco product use (WHO, 2013b)

The study also reported that prevalence of tobacco use smoking among adults in the African Region, was estimated to be at 21% for males and 3% for females; although in some countries it was up to 48% for males and 20% for females. The same report also found out that young adults' prevalence was at 18% (21% for boys and 13% for girls) currently; however, this trend among young people was increasing.

4.4.3 Prevalence of Khat (Miraa) use Per Socio-demographic Characteristics

Table 4.5

Indicates Prevalence of Khat) use Based on Demographic Characteristics

		Khat (Miraa)	
Socio-Demographic Characteristics		**n**	**%**
Age	18-19	21	40.4%
	20-21	20	52.6%
	22-23	26	51.0%
	24-25	35	48.6%
Gender	Male	69	55.6%
	Female	32	36.4%
Highest level of education completed	Primary and Below	36	69.2%
	Secondary Education	36	45.0%
	Middle College Education	8	53.3%
	Certificate	10	38.5%
	Diploma	11	33.3%
	Undergraduate Education	1	14.3%
Marital status	Married	14	25.5%
	Single	75	53.6%
	Divorced	10	76.9%
	Separated	2	50.0%
	Widowed	0	0.0%
	Other	1	100.0%
Born in Eastleigh	No	49	53.3%
	Yes	53	43.8%

Khat use based on age, had almost no major differences, highest being those between 20-21 and between 22 – 23 at 52.6% and 51.0% respectively, while the lowest were those between ages 18 -19 at 40.4%. Expectedly the males had higher (55.6%) use compared to lower female use at 36.4%. Based on level of education, the lower the educational level, the more khat use with the highest being those with primary or below educational level while the lowest use being among the undergraduate and over educational level, 14.3%. The divorced, single, and separated had higher khat

prevalence use at 76.9%, 53.6% and 50.0% respectively compared to the married, (25.5%). Those born outside Eastleigh (53.3%) had slightly higher khat prevalence use compared to those born in Eastleigh, (43.8%).

This study found khat prevalence at high of 47.90%. This is similar to other studies among same type of population from same region. Khat use among secondary school students in Ethiopia was found to be at 71.5% and 28.5% among males and females respectively. However, khat use among medical students in Ethiopia reports a 7%. In addition, Alireza et al. (2018) reported that patients entering HIV treatment programs in Ethiopia, had a high khat use for lifetime (75%), use the previous year (65%) and 54% began use before they were 19 years of age. However, another study in Southern Ethiopia, among preparatory students in Bale Zone, Oromo regional State reported a khat use of 23.6%.

4.4.4 Prevalence of Shisha use Per Socio-demographic Characteristics

Table 4.6

Prevalence of Shisha use Based on Demographic Characteristics

Demographic Characteristics		Shisha	
		n	%
Age	18-19	13	25.0%
	20-21	15	39.5%
	22-23	17	33.3%
	24-25	23	31.9%
Gender	Male	35	28.2%
	Female	32	36.4%
Highest level of education completed	Primary and below	15	28.8%
	Secondary Education	25	31.3%
	Middle College Education	10	66.7%
	Certificate	10	38.5%
	Diploma	8	24.2%

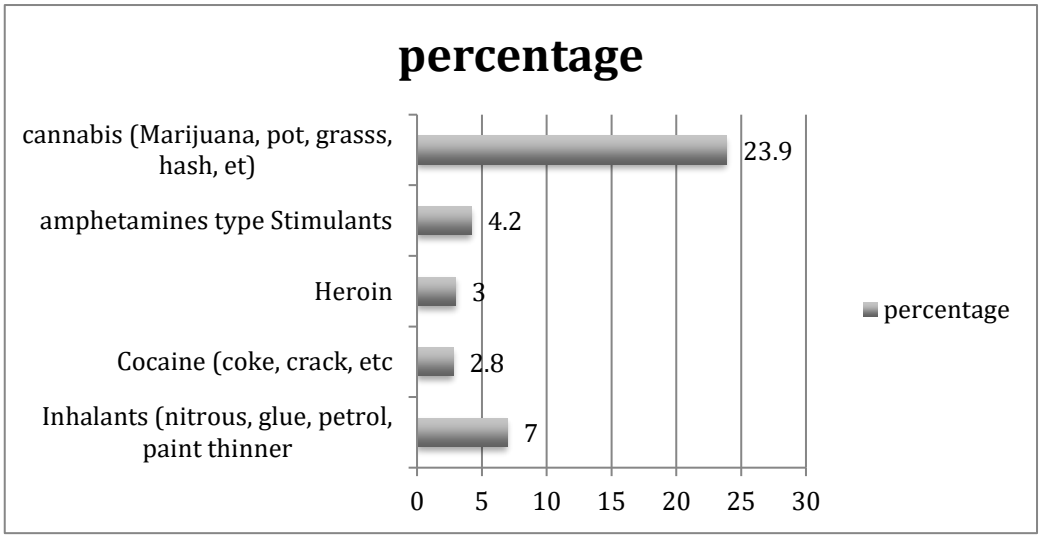
	Undergraduate Education	0	0.0%
Marital status	Married	9	16.4%
	Single	46	32.9%
	Divorced	9	69.2%
	Separated	3	75.0%
	Widowed	0	0.0%
	Other	1	100.0%
Born in Eastleigh	No	34	37.0%
	Yes	34	28.1%

Prevalence use based on age was minimal, with a high of 39.5 among those between 22 – 23 years of age, and a lower of 25.0% among those between ages 18 -19. The females had higher (36.4%) prevalence of Shisha use compared to the males, (28.2%). Based on Educational level, those with middle college education had the highest prevalence (66.7%), while the lowest is among with primary and below education (28.8%) and those with diploma education, (24.2%). The separated, divorced and single had higher prevalence of 75.0%, 69.2% and 32.9% respectively, while the married had lower prevalence of 16.4%. Those born outside Eastleigh had higher prevalence (37.0%), compared to those born in Eastleigh, 28.1%.

4.5 Prevalence of Illicit Psychoactive Substance Use

Figure 4.4

Prevalence of illicit psychoactive substance use



Those who used illicit substances reported use as follows: cannabis, 23.9%, inhalants, 7.0%, amphetamines, 4.2%, heroin, 3.8% and cocaine, 2.8% prescription medication use was reported at 10.3%. Prevalence of marijuana among this population was found at 23%. This is almost same among other youth in other areas which recorded 17.7., high school graduates have been found with a prevalence of 18.8%. However, this is lower than what was reported by NACADA 2014 who found a prevalence of 50.3% among youth in Kenya. Prevalence of heroin was found to be 3.8% among these participants. This is lower that what was found by Mutiso et al. (2012) among youth in Bamburi, who found a prevalence rate of 8.9% and that reported by (NACADA, 2014) among Kenyan youth. Cocaine was recorded to be at 2.8% in this population. This is higher than what was found by NACADA that stood at 0.1% among youth. Inhalants had a prevalence rate of 7% among these participants. This was found to be lower than what was found among street children in Kenya, in 2013, (Embleton et al.,

2013). This finding is attributed to the fact that inhalants are mostly used by street children in this country. However, this finding is almost same to reports of 5.2% among school going children in Western Kenya, Kisumu (Otieno & Ofulla, 2009).

4.5.1 Prevalence of Cannabis use per Socio-Demographic Characteristics

Table 4.7

Cannabis use per Socio-Demographic Characteristics

Socio-Demographic Characteristics		**Yes**		**No**	
		n	**%**	**n**	**N %**
Gender	Male	85	52.5%	39	76.5%
	Female	76	46.9%	12	23.5%
	Other	1	.6%	0	0.0%
Age in years	18-19	43	26.5%	9	17.6%
	20-21	27	16.7%	11	21.6%
	22-23	37	22.8%	14	27.5%
	24-25	55	34.0%	17	33.3%
Parents marital Status	No	47	29.0%	23	45.1%
	Yes	115	71.0%	28	54.9%
Born in Eastleigh	No	69	42.6%	23	45.1%
	Yes	93	57.4%	28	54.9%
Highest level of education attained	Primary and below	26	16.0%	26	51.0%
	Secondary Education	67	41.4%	13	25.5%
	Middle College Education	12	7.4%	3	5.9%
	Certificate	22	13.6%	4	7.8%
	Diploma	28	17.3%	5	9.8%
	Undergraduate Education	7	4.3%	0	0.0%
Marital status	Married	52	32.1%	3	5.9%
	Single	98	60.5%	42	82.4%
	Divorced	8	4.9%	5	9.8%
	Separated	4	2.5%	0	0.0%
	Widowed	0	0.0%	0	0.0%
	Other	0	0.0%	1	2.0%

Cannabis usage among men was greater (52.5%) than among women (46.9%), who used it less often. According to age, cannabis consumption was 34.0% among people aged 24–25, 26.5% among people aged 18–19, 22.8% among people aged 22–23, and 16.7% among people aged 20–21. When compared to those without married parents, individuals with married parents used cannabis more often (71.0%), while people born in Eastleigh used cannabis more frequently (57.4%) than people born outside of Eastleigh. Marijuana usage was distributed as follows according to educational level: secondary education, 41.4%; diploma level, 17.3%; certificate level, 13.8%; elementary and below education, 16.0%; middle college education, 7.4%; and undergraduate education, 4.3%. According to the participants' marital status, those who were single or married reported greater rates of use—60.5% and 32.1%, respectively—than those who were divorced, separated, or widowed, who reported rates of 4.9%, 2.5%, and 0.0%, respectively.

A high frequency of 23.9% was discovered by this investigation among these patients. This is comparable to what Thrul et al. (2021) discovered among young African American kids in the United States, with a range of between 31.4% and 40.3%. Adeyemo et al. (2016) found a frequency of 31.6% among university students in Benin City, Nigeria, whereas another study found a prevalence of 21% among convicts at Eldoret Prison, Kenya.

4.5.2 Prevalence of Amphetamines use per Socio-Demographic Characteristics

Table 4.8

Amphetamines use per Socio-Demographic

Socio-Demographic Characteristics		Yes		No	
		n	N %	n	N %
Gender	Male	117	57.4%	7	77.8%
	Female	86	42.2%	2	22.2%
	Other	1	.5%	0	0.0%
Age in years	18-19	51	25.0%	1	11.1%
	20-21	36	17.6%	2	22.2%
	22-23	49	24.0%	2	22.2%
	24-25	68	33.3%	4	44.4%
Parents marital Status	No	63	30.9%	7	77.8%
	Yes	141	69.1%	2	22.2%
Born in Eastleigh	No	90	44.1%	2	22.2%
	Yes	114	55.9%	7	77.8%
Highest level of education attained	Primary and below	44	21.6%	8	88.9%
	Secondary Education	79	38.7%	1	11.1%
	Middle College Education	15	7.4%	0	0.0%
	Certificate	26	12.7%	0	0.0%
	Diploma	33	16.2%	0	0.0%
	Undergraduate Education	7	3.4%	0	0.0%
Marital status	Married	54	26.5%	1	11.1%
	Single	132	64.7%	8	88.9%
	Divorced	13	6.4%	0	0.0%
	Separated	4	2.0%	0	0.0%
	Widowed	0	0.0%	0	0.0%
	Other	1	.5%	0	0.0%

The majority of males, (57.4%) use amphétamines compared to a lesser use among the females, 47.2%. Based on age in yearsthose of between 24-25 years of agehad a higher use of 33.3%, compared to those of 18-19 years, (25.0%, 22-23 years of age, 24.0%,

and 20-21 years of age, 17.6%, Participants who have married parents had a higher use of amphetaminesat 61.1% compared to those whose parents were not married, 30.9%. Based on educational level highest use was among those with secondary education (38.7%), while those with primary and below education. This study indicated a prevalence use of 4.2%. This is slightly lower than what was found among individuals in rehabilitation centres in Mombasa, Kenya that indicated a prevalence of 6.4%; and that among University Students in Kenya found to be 5%, (Otieno & Ofulla, 2009)

4.5.4 Prevalence of Cocaine per Social Demographic factors

Table 4.9

Cocaine Use per Socio-Demographic Characteristics

Socio-Demographic Characteristics		**Yes**		**No**	
		n	**N %**	**n**	**N %**
Gender	Male	5	83.3%	119	57.5%
	Female	1	16.7%	87	42.0%
	Other	0	0.0%	1	.5%
Age in years	18-19	0	0.0%	52	25.1%
	20-21	1	16.7%	37	17.9%
	22-23	0	0.0%	51	24.6%
	24-25	5	83.3%	67	32.4%
Parents marital Status	No	3	50.0%	67	32.4%
	Yes	3	50.0%	140	67.6%
Born in Eastleigh	No	2	33.3%	90	43.5%
	Yes	4	66.7%	117	56.5%
Highest level of education attained	Primary and below	4	66.7%	48	23.2%
	Secondary Education	1	16.7%	79	38.2%
	Middle College Education	0	0.0%	15	7.2%
	Certificate	0	0.0%	26	12.6%
	Diploma	1	16.7%	32	15.5%
	Undergraduate Education	0	0.0%	7	3.4%
	Post Graduate	0	0.0%	0	0.0%

Marital status	Married	0	0.0%	55	26.6%
	Single	4	66.7%	136	65.7%
	Divorced	1	16.7%	12	5.8%
	Separated	0	0.0%	4	1.9%
	Widowed	0	0.0%	0	0.0%
	Other	1	16.7%	0	0.0%

The prevalence of Cocaine was found to be 2.8% in this population. This finding is higher than what was found by NACADA, 2013 that indicated a prevalence of 0.1% among the population in Kenya. The majority (83.3%) of the males used cocaine, compared with the females, 16.7%. Based on age bracket, those of between 24-25 had a very high use of 83.3% compared to a low from the 20-21, (16.7%), 18-19 and 22-23 had 0.0% use.

4.5.5 Prevalence of Inhalant use per Socio-Economic Characteristics

Table 4.10

Inhalant use per Socio-Economic Characteristics

Economic Characteristics		**Yes**		**No**	
		n	**N %**	**n**	**N %**
Occupation	Self employed	0	0.0%	20	10.1%
	Business	0	0.0%	11	5.6%
	Employed	0	0.0%	40	20.2%
	Unemployed	15	100.0%	76	38.4%
	Student	0	0.0%	51	25.8%
Family income	Very High	0	0.0%	2	1.0%
	High	0	0.0%	16	8.1%
	Moderate	1	6.7%	150	75.8%
	Low	1	6.7%	27	13.6%
	Very Low	8	53.3%	3	1.5%
	I do not know	5	33.3%	0	0.0%

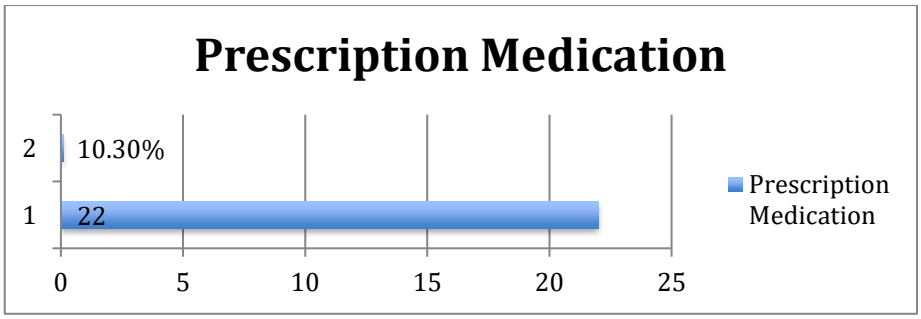
Based on the socio-economic characteristics, the unemployed reported a higher inhalant use of 100% compared to the self-employed, those with business, and students

who reported use of 0.0%. Those with very low family income and those who did not know of their family income reported a higher use of 53.3% and 33.3% respectively compared to those with low income, moderate income, high income and very high income, at 6.7%, 6.7%,0.0% and 0.0% respectively. Findings in Kenya indicate an inhalant use of 5.2% among children going to schools specially those below 16 years of age (Otieno & Ofulla, 2009).

4.6 Prevalence of Prescription Medication

Figure 4.5

Prevalence of Prescription Medication



Those who use prescription medication were 22 (10.3%)

This study found a prevalence of 10.3 prescription medication use. This finding is comparable to that found among homeless youth in Los Angeles, (Al-Tayyib et al., 2016). However, it is lower than among youth in the United States, which was reported to be at 21.6%, Abreu et al. (2012) and that among youth who had used same in the past three months in an emergency department. Those who had undergone beyond risky alcohol use for use of prescription drugs indicated 29.7% use.

4.6.1 Prevalence of Prescription Medication Per Socio-Demographic Characteristics

Table 4.11

Prescription Medication use Per Socio-Demographic Characteristics

		Yes		No	
		n	N %	n	N %
Gender	Male	17	77.3%	107	56.0%
	Female	4	18.2%	84	44.0%
	Other	1	4.5%	0	0.0%
Age in years	18-19	4	18.2%	48	25.1%
	20-21	7	31.8%	31	16.2%
	22-23	6	27.3%	45	23.6%
	24-25	5	22.7%	67	35.1%
Parents marital Status	No	14	63.6%	56	29.3%
	Yes	8	36.4%	135	70.7%
Born in Eastleigh	No	8	36.4%	84	44.0%
	Yes	14	63.6%	107	56.0%
Highest level of education attained	Primary and below	14	63.6%	38	19.9%
	Secondary Education	4	18.2%	76	39.8%
	Middle College Education	2	9.1%	13	6.8%
	Certificate	1	4.5%	25	13.1%
	Diploma	1	4.5%	32	16.8%
	Undergraduate Education	0	0.0%	7	3.7%
	Post Graduate	0	0.0%	0	0.0%
Marital status	Married	1	4.5%	54	28.3%
	Single	19	86.4%	121	63.4%
	Divorced	1	4.5%	12	6.3%
	Separated	1	4.5%	3	1.6%
	Widowed	0	0.0%	0	0.0%
	Other	0	0.0%	1	.5%

Prescription medication has a higher use among males at 77.3% compared to females. Based on age in years, use is as follows: 20-21 years, 31.8%, 22-23 years, 27.3%, 24-25 years, 22.7% and 18-19 years 18.2%. Those with parents not married use a higher

prescription medication of 63.6% compared to those with those with married parents; while those born in Eastleigh used a higher prescription medication of 63.6% compared with those born out of Eastleigh. Based on educational level prescription medication is used as follows, primary and below, 63.6%, those with secondary education, 18.2%, those with middle college education, 9.1%, those with certificate and diploma education, 4.5% each, and those with undergraduate and post graduate 0.0% each. The singles used prescription medication at 86.4% while the single, divorced, and the separated used at 4.5% each and the widowed and others did not use any prescription medication.

This finding is in line with other studies. A study of gender differences and trends on prescription medication, (Back et al., 2010; Marsh et al., 2018) both done in the US, indicated that higher use has been found among the males compared to the females. In addition, more use is found among the youth compared to other ages, NACADA (2014) reports.

4.6.2 Prevalence of Prescription Medication Use per Economic Characteristics

Table 4.12

Prescription Medication use Per Economic Characteristics

		Yes		No	
Occupation	Self employed	0	0.0%	20	10.5%
	Business	0	0.0%	11	5.8%
	Employed	1	4.5%	39	20.4%
	Unemployed	20	90.9%	71	37.2%
	Student	1	4.5%	50	26.2%
Family income	Very High	0	0.0%	2	1.0%
	High	1	4.5%	15	7.9%
	Moderate	10	45.5%	141	73.8%

	Low	1	4.5%	27	14.1%
	Very Low	6	27.3%	5	2.6%
	I do not know	4	18.2%	1	.5%
Living Conditions	Living with my parents	4	5.4%	70	94.6%
	Living with relatives	1	3.8%	25	96.2%
	Living with friends	4	23.5%	13	76.5%
	Living alone	2	9.1%	20	90.9%
	Living with parents and other relatives	3	14.3%	18	85.7%
	Living with spouse/partner	0	0.0%	40	100.0%
	Other	8	61.5%	5	38.5%

Those who were unemployed used a higher prescription medication at 90.9%, compared to the employed and the students at 4.5% each while the self-employed, the and the business participants had a 0.0% use each. Those with lower income indicate a higher prescription drug use compared with those with higher income, while those living with friends and parents have a higher prescription use compared with those living alone, living with a spouse or with relatives.

4.6.3 Prescription Medication use Per Socio-Demographic Characteristics

Table 4.13

Prescription Medication use Per Socio-Demographic Characteristics

		Yes		**No**	
		n	**N %**	**n**	**N %**
Gender	Male	17	77.3%	107	56.0%
	Female	4	18.2%	84	44.0%
	Other	1	4.5%	0	0.0%
Age in years	18-19	4	18.2%	48	25.1%
	20-21	7	31.8%	31	16.2%
	22-23	6	27.3%	45	23.6%
	24-25	5	22.7%	67	35.1%
Parents marital Status	No	14	63.6%	56	29.3%
	Yes	8	36.4%	135	70.7%
	No	8	36.4%	84	44.0%

Born in Eastleigh	Yes	14	63.6%	107	56.0%
Highest level of education attained	Primary and below	14	63.6%	38	19.9%
	Secondary Education	4	18.2%	76	39.8%
	Middle College Education	2	9.1%	13	6.8%
	Certificate	1	4.5%	25	13.1%
	Diploma	1	4.5%	32	16.8%
	Undergraduate Education	0	0.0%	7	3.7%
	Post Graduate	0	0.0%	0	0.0%
Marital status	Married	1	4.5%	54	28.3%
	Single	19	86.4%	121	63.4%
	Divorced	1	4.5%	12	6.3%
	Separated	1	4.5%	3	1.6%
	Widowed	0	0.0%	0	0.0%
	Other	0	0.0%	1	.5%

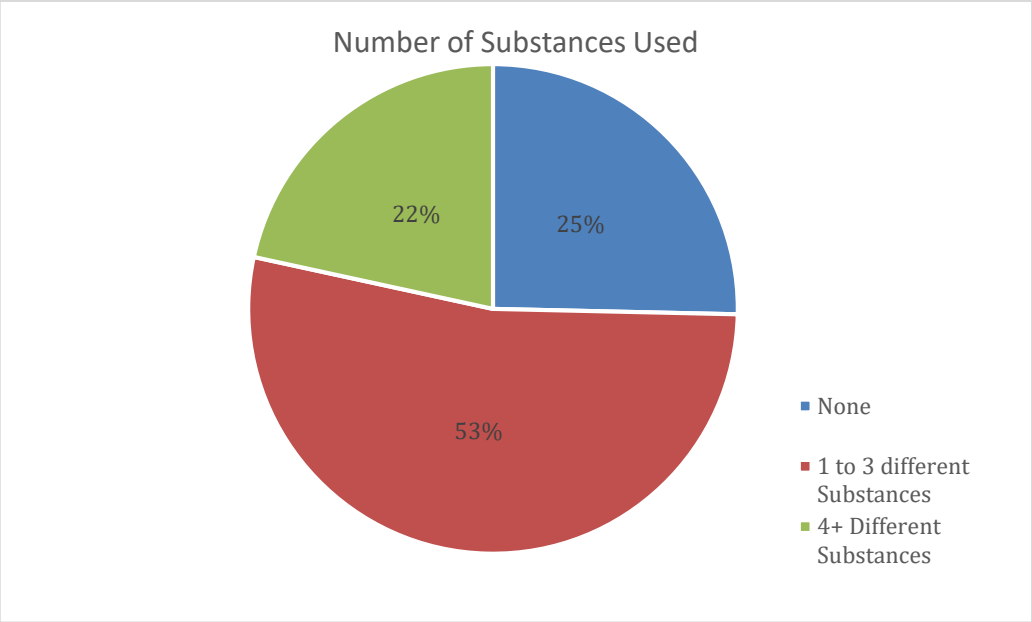
Prescription medication has a higher use among males at 77.3% compared to females. Based on age in years, use is as follows: 20-21 years, 31.8%, 22-23 years, 27.3%, 24-25 years, 22.7% and 18-19 years 18.2%. Those with parents not married use a higher prescription medication of 63.6% compared to those with those with married parents; while those born in Eastleigh used a higher prescription medication of 63.6% compared with those born out of Eastleigh. Based on educational level prescription medication is used as follows, primary and below, 63.6%, those with secondary education, 18.2%, those with middle college education, 9.1%, those with certificate and diploma education, 4.5% each, and those with undergraduate and post graduate 0.0% each. The singles used prescription medication at 86.4% while the single, divorced, and the separated used at 4.5% each and the widowed and others did not use any prescription medication.

4.7 Pattern of Psychoactive Substance Use

4.7.1 Number of Substances used Per Participant.

Figure 4.6

Number of substances used



The majority (53%) of these participants, use between 1 to 3 substances, while 22% and 25% use 4 substances and only 25% do not use any of these substances. This finding is almost in line with other studies. Capella & Adan (2017) found out that polydrug use among young men in Spain was found to be at 41.8%. Paudel and Gautam (2017) in a study of substance use onset among individuals found that 43.9% of the youth used more than one substance.

4.7.2 Age of Onset of Psychoactive Substance Use

4.7.2.1 Illicit Substance Use Age of Onset

Table 4.14

Indicates Illicit Psychoactive Substance Use

	Below 18	**Between 18-20**	**Over 20**
Alcoholic beverages (beer, wine, spirits, etc.)	49	23	3
	65.3%	30.7%	4.0%
Tobacco products (cigarettes, chewing tobacco, cigars, etc.)	65	26	0
	71.4%	28.6%	0.0%
Khat (Miraa)	67	32	3
	65.7%	31.4%	2.9%
Shisha (hooker…etc.)	35	28	5
	51.5%	41.2%	7.4%

Illicit drug use onset per age is indicated to be higher below 18 years as follows: highest being tobacco products at 71.4%, khat, at 65.7%, alcoholic beverages at 65.3%, and shisha at 51.5%. Shisha had highest onset between ages 18-20 with 41.2%, khat at 31.4%, alcoholic beverages at 30.7% and tobacco products at 28.6%. Onset after 20 years of age was indicated as the lowest in all Illicit drug use onset, shisha at 7.4%, alcoholic beverages at 4.0%, khat at 2.9% and tobacco products at 0.0%.

Alcoholic age (under 18 years) of onset was found at 65.3% among these participants. Age of alcohol onset was a significant factor ($p>0.0001$) among youth because age of onset was found to be 13 years and 7.9 % had used alcohol, while 75% had tried use by end of high school, about 18 years of age. This higher than what was found by Mutumba & Schulenberg (2019) among youth in Kakamega (3.3%), Bungoma, (5.3%) and Turkana, (4.7%).

Tobacco use was found to have the highest onset by 18 years. This finding is contrary to the findings of Mutumba and Schulenberg (2019) as cited by Wasil et al. (2020) which indicated tobacco use onset as follows: at 17.6 years of age, 2.1% in Bungoma, 15.4 years of age, 7.5% in Kakamega and at 20 years of age, 0% had used tobacco. This difference could be attributed to youth in Eastleigh being in a bigger city and availability compared to those found by Wasil et al. (2020).

Miraa use was indicated to be 67.5% at age 18 and below. Other studies have found age to be a significant factor (<.0001) in rural Kenya (Ongeri et al., 2019). Miraa onset was found to be as early as 10 years and by 18 years 28.3% were already using miraa in rural Kenya. This discrepancy was expected as Somali youth may be traditionally able to use miraa unlike other populations in rural Kenya.

Shisha onset is 18 years and below among these participants. This is almost similar with other studies. Aanyu et al., (2019) found that 46.2% of youth in Kampala of between 18 to 24 years were already using shisha. While Naicker et al., (2020) indicated that school learners in Johannesburg had a shisha use of 69.81 by age 18 years.

4.7.2.2 Illicit Substance use age Onset

Table 4.15

Illicit psychoactive substance use onset per age

	Below 18	Between 18-20	Over 20
Cannabis (marijuana, pot, grass, hash, etc.)	37	13	1
	72.5%	25.5%	2.0%
Amphetamine-type stimulants (speed, meth, ecstasy, etc.)	7	1	1
	77.8%	11.1%	11.1%
Heroin	4	3	1
	50.0%	37.5%	12.5%
Cocaine (coke, crack, etc.)	3	1	2
	50.0%	16.7%	33.3%
Inhalants (nitrous, glue, petrol, paint thinner, etc.)	11	1	3
	73.3%	6.7%	20.0%

Onset of illicit drug use indicates that most of these participants begun use while under 18 years, between 50% to 77.8%, followed by between 18-20 years of age at 6.7% to 40.9% and over 20 years of age between 2.0% to 33.3%.

This study has found that by 18 years, about 50% of young people are already using cannabis. This is different from Otieno & Ofulla, (2009) found that by 18 years of age, 18.3% secondary school students had abused cannabis. This difference is more likely to be due to the time of study. Kisilul et al. (2022) in a study of patterns of early drug use onset found that by about 18 years of age, 35.9% of youth were already using cannabis, which mostly begun at age 16.Amphetamine onset was found to have a 77.8% onset before 18 years. This finding is in line with findings of Kisilul at el. (2022) who indicated that most of the young people start using amphetamines at ages 10-14 years in Kenya. 50.0% of heroin users among these participants. This finding is the same as what was found by Kisilul et al. (2022) which indicated about 50% begin

using heroin at 18 years and below. Cocaine onset was indicated to have a 50% onset, this is same with what was found by Kisilul et al. (2022) who found an onset of 50% by age 19 and below.

4.7.2.3 Prescription Medication use age onset

Table 4.16

Prescription Medication use onset age

	Below 18	Between 18-20	Over 20
Prescription Medication	12	9	1
	54.5%	40.9%	4.5%

Most (54.5%) indicated that they started using prescription medication below 18 years of age followed by 40.9%, and 4.5% among those between 18-20 and over 20 years of age at 40.9% and 4.5% respectively.

4.7.3 Comorbidity of Substance Use

4.7.3.1 Comorbidity of Licit Substance Use

Table 4.17

Comorbidity of Licit Psychoactive Substance Use

SUBSTANCE	Alcohol	Tobacco products	Khat (Miraa)	Shisha
Alcoholic beverages		61.3%	66.7%	32.0%
Tobacco products	50.5%		68.1%	39.6%
Khat (Miraa)	49.0%	60.8%		49.0%
Shisha	35.3%	52.9%	73.5%	

In addition to drinking alcohol, 61.3% of respondents who also use tobacco products, 66.7% of respondents who use khat, and 32% of respondents who use Shisha. 50.5%

of those who use tobacco-related products also use alcohol, 68.1% use khat, and 39.6% use shisha. In addition to drinking alcohol, a comparable percentage of khat users also smoke shisha, and 60.8% of them use tobacco. A little more than one third (35.3%) of shisha users also consume alcoholic drinks, and more than half (52.9%) also use khat and tobacco products.

Alcohol drinkers make up 61.3% of tobacco users. This result is greater than what Anthony and Echeagaray-Wagner (2000) discovered for general population usage in the USA, which ranged from 35 to 45%. This discrepancy might have resulted from the study's use of a younger group. 66.7% of those who consume alcohol also use miraa. This is better than the results by Kassa et al. (2016), which showed a 29.6%.

Similar to the results of Omotehinwa et al. (2018) who found that 67.7% of those who use tobacco also use alcohol, 50% of tobacco users also use alcohol. Similar results from a private institution in Kigali, Rwanda, among students showed 35% alcohol consumption Omotehinwa et al. (2018). 35.3% of shisha users also consume alcohol. According to Singh et al. (2017) research among Malaysian teenagers, 52.9% of shisha consumers also use tobacco products.

4.7.3.2 Comorbidity of Licit and Illicit Substance Use

Table 4.18

Comorbidity of Licit and Illicit Substance Use

	Cannabis	Amphetamine-type stimulants	Heroin	Cocaine	Inhalants
Cannabis		17.6%	15.7%	9.8%	27.5%
Amphetamine-type stimulants	100.0%		33.3%	33.3%	77.8%
Heroin	100.0%	37.5%		62.5%	50.0%
Cocaine	83.3%	50.0%	83.3%		50.0%
Inhalants	93.3%	46.7%	26.7%	20.0%	

Licit and illicit psychoactive substance use was reported as follows, those who used cannabis, 27.5% used Inhalants, 17.6% used amphetamines, 15.7% used heroin and 9.8% used heroin. Those who reported to use amphetamines also reported 100% use of cannabis, 77.8% use of inhalants, and 33.3% use of heroin and cocaine. Those who used heroin, reported to also use cannabis at 100%, cocaine at 62.5%, inhalants at 50.0% and amphetamines at 37.5%. Those who used cocaine reported cannabis and heroin use at 83.3% each and amphetamine and inhalant use at 50.0% use each. Those who used inhalants reported a cannabis use at 93.3%, amphetamine use at 46.7%, heroin use at 26.7% and cocaine use at 20.0%.

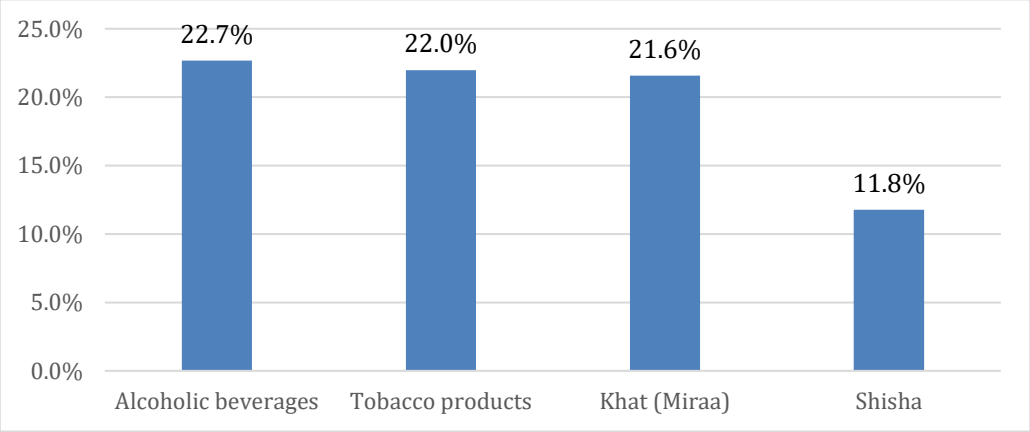
Cannabis users were found to also use amphetamines (17.6%). This is in line with other findings of Thrul et al. (2021), who recorded 18% comorbid use among secondary school students in Nigeria. 15.7% used Heroin, while 9.8% used cocaine. This is higher than what has found from to other studies, which recorded 1-3% comorbid use among secondary school going students. 27% used inhalants which is in line with other studies.

Comorbidity of Amphetamines and other illicit drugs indicated high use of cannabis at 100%, heroin at 33.3% and inhalants at 77.8%. This finding is higher than what was reported by NACADA (2014) which reported a low of 0.5% use among all illicit substances except cannabis which recorded 1.2% among Kenyan s aged 15 to 65 years of age.

4.7.3.3 Illicit and Prescription Medication Use

Figure 4.7

Illicit Substance users who use prescription drugs



Among the alcohol consumers, 22.7% also use prescription drugs, closely followed by the tobacco products consumers, who 22% also take prescription drugs. Among the khat users, 21.6% also use prescription drugs and 11.8% of the shisha users also use prescriptive drugs. No studies were found that would compare this comorbidity; however, these comorbid percentages are quite high than expected.

4.7.3.4 Comorbidity of Licit and Illicit Psychoactive substance Use

Table 4.19

Comorbidity of licit and Illicit Psychoactive Substance Use

Substance	Alcoholic beverages	Tobacco products	Khat (Miraa)	Shisha
Cannabis	76.5%	74.5%	88.2%	47.1%
Amphetamine-type stimulants	100.0%	100.0%	100.0%	22.2%
Heroin	87.5%	87.5%	87.5%	62.5%
Cocaine	66.7%	83.3%	83.3%	50.0%
Inhalants	93.3%	93.3%	93.3%	26.7%

Among the respondents who use Cannabis, the majority also uses khat, 88.2%, alcoholic beverages, 76.5%, tobacco products, 74.5% and shisha, 47.1%. Those who use amphetamines, all of them (100%) also use alcoholic beverages, tobacco products and khat, while only 22.2% use Shisha. Most of heroin users also use alcoholic beverages; tobacco products and khat all at 87.5% and shisha at 62.5%, the majority of those who use heroin also use alcoholic beverages, tobacco products, khat all at 87.5% and shisha at 62.5%. Over a half of those who use cocaine also use tobacco products, 83.3 %, khat, 83.3%, alcoholic beverages, 66.7% and shisha 50.0%. Almost all inhalant users also use alcoholic beverages; tobacco products and khat all at 93.3% and about a quarter of them use shisha, 26.6%

Those who were found to use cannabis indicated a very high use of other Illicit substances of alcohol beverages at 76.5%, tobacco products at 74.5%, miraa at 88.2% and shisha at 47.1%. This indication is very high meaning that those who use cannabis

are more likely to also use all other Illicit substances. However, no studies were found that would compare this comorbidity.

4.7.4 Reasons for Onset of Substance Use

Table 4.20

Given Reasons for Psychoactive Substance Use

Main reason for the using the psychoactive substance use		
Peer Pressure	35	66.0%
To exposure to others	16	30.2%
Parental use	1	1.9%
Affordable	1	1.9%

Peer pressure was cited as the cause for usage by 35 (66.0%) people, whereas exposure from others was cited by 16 (30.2%). Affordability and parental usage both stood at (1.9%).

According to this research, peer pressure was the main motivator for using psychoactive drugs. This result is consistent with previous research; Soussan et al. (2018) observed high usage among teens in Sweden owing to peer pressure. Similar findings were found in research by Duru et al. (2017) in Nigeria among university students, which showed a high peer pressure rate of 69%. Similar to prior research, Duru et al. (2017) discovered that 34.2% of people used psychoactive substances to become exposed to others. 30.2% were found to utilize these drugs for this purpose. In comparison to previous research, the contribution of parental usage to psychoactive drug use was minimal in this group. According to Ruby et al. (2018), parental use of psychoactive drugs contributed to early juvenile usage as well as a higher likelihood of using a range of psychoactive substances.

4.8 Contributing Factors to Psychoactive Substance Use

4.8.1 Socio-Demographic Influence of substance use

Table 4.21

Socio-Demographic Influence of Psychoactive Substance Use

Socio-Demographic Characteristics		**Use of any substances by response**				**Chi-Square**
		Not using		***Using***		**(χ^2, df, p-value)**
		n	%-age	n	%-age	
Gender	Male	24	19.4%	100	80.6%	6.247
	Female	30	34.1%	58	65.9%	2
	Other	0	0.0%	1	100.0%	**.044**[*,c]
Marital status	Married	21	38.2%	34	61.8%	8.028
	Single	31	22.1%	109	77.9%	4
	Divorced	1	7.7%	12	92.3%	.091[c]
	Separated	1	25.0%	3	75.0%	
	Other	0	0.0%	1	100.0%	
Highest level of education attained	Primary and below	9	17.3%	43	82.7%	5.081
	Secondary School	23	28.8%	57	71.3%	6
	Middle College	2	13.3%	13	86.7%	.533
	Certificate	7	26.9%	19	73.1%	
	Diploma	10	30.3%	23	69.7%	
	Undergraduate	1	50.0%	1	50.0%	
	Post Graduate	2	40.0%	3	60.0%	

A chi-square t-test was conducted on influence of socio-demographic characteristics of on psychoactive substance use and gender and marital status was indicated to have a significant variation (p value =0.044) and (p value=0.091) respectively.

It has been shown that gender plays a significant role in the usage of psychoactive drugs. According to Johnson et al. (2017), gender significantly (p=0.000) contributed to the usage of psychoactive drugs. Compared to women, men are more prone to use psychoactive drugs. The level of education does not significantly (p=0.53) influence

the use of psychoactive substances in this population, despite the fact that individuals who drop out of school use drugs more often than those who remain in school. The degree of education among young people was not significant (p=0.61), however other researches showed that individuals who dropped out of school were more likely to use psychoactive drugs. Despite the fact that marital status was not a major factor, married people use psychoactive drugs more often than single people.

4.8.2 Family and Socio-economic Factors

Table 4.22

Family and Social-Economic Background influence on Psychoactive Substance Use

		Use of any substances by response				**Chi-Square** (χ^2, df, p-value)
		Not using		**Using**		
		Count	%-age	Count	%-age	
Family income	Very High	0	0.0%	2	100.0%	
	High	6	37.5%	10	62.5%	14.351
	Moderate	46	30.5%	105	69.5%	5
	Low	2	7.1%	26	92.9%	**.014****
	Very Low	0	0.0%	11	100.0%	
Parents marital state	Single parents	12	17.1%	58	82.9%	3.713
	Parents Living together	42	29.4%	101	70.6%	1 .054
Use of the substances in the family	None	54	40.9%	78	59.1%	44.390
	At least one member uses	0	0.0%	81	100.0%	1 **0.000****

Chi-square t-test on major family and social-economic background influence on psychoactive substance use indicted significant variation in family income (p value=0.014), parental marital status, (p=0.054) and use of psychoactive substance in the family, (p=0.000).

Family income has been indicated to contribute significantly to the use of substances. Family income was a significant factor to psychoactive drug use, (p=0.15); those with lower family income are more likely to take to psychoactive drugs compared to those with higher family income. This finding has also been confirmed from other studies, Carpenter et al. (2018). A significance of p=0.054 was indicated in marital status of parents. This is in line with findings of Johnson et al. (2017) who found a significant value, (p=0.000). Those whose parents were not married were more likely to take substances than those whose parents were married. Family members use of substance abuse was found to be a significant (p=0.000) contributor to use of psychoactive substances by these participants. This is in line with other findings; Lipari et al. (2017) found that there was a high probability of parents who use psychoactive drugs to influence their children to psychoactive drug use. Similarly, (Ruby et al., 2018) found out that parents who used psychoactive substances had a significant (p=0.002) contribution to their children taking the same.

4.8.3 Environmental Factors

Table 4.23

Environmental influence on Psychoactive Substance Abuse Use

		Use of Substance				**Chi-Square** (χ^2, df, p-value)
		Not using		**Using**		
		n	%-age	n	%-age	
Area	2nd Street	11	30.6%	25	69.4%	4.164
	3rd Street	10	30.3%	23	69.7%	7
	4th Street	16	25.0%	48	75.0%	.761
	Bobbie street	3	20.0%	12	80.0%	
	Malewa street	2	18.2%	9	81.8%	
	Marie stopes	6	33.3%	12	66.7%	
	Muyuyu street	2	28.6%	5	71.4%	

	St Theresas	4	13.8%	25	86.2%	
Area of Upbringing	Outside Eastleigh	19	20.7%	73	79.3%	1.890 1
	Eastleigh	35	28.9%	86	71.1%	.169
Occupation	Self employed	6	30.0%	14	70.0%	
	Business	2	18.2%	9	81.8%	10.941
	Employed	12	30.0%	28	70.0%	4
	Unemployed	14	15.4%	77	84.6%	**.027***
	Student	20	39.2%	31	60.8%	
Living Conditions	Live with parents	22	29.7%	52	70.3%	
	Live with relatives	5	19.2%	21	80.8%	
	Live with friends	1	5.9%	16	94.1%	19.628
	Live alone	2	9.1%	20	90.9%	6
	Live with parents and other relatives	10	47.6%	11	52.4%	.003*
	Live with spouse/partner	14	35.0%	26	65.0%	
	Other	0	0.0%	13	100.0%	
Total		**54**	**25.4%**	**159**	**74.6%**	

A Chi-square test for independence on environment and substance abuse showed a significant relationship between occupation and substance abuse (p-value=0.027) and living conditions (p=0.003). It is notable that the unemployed (84.6%) and those in business (81.8%) had a very high-level substance use while students (60.8%) had the lowest level of use by occupation. Occupation was found a significant (p=0.027) contributing factor to the uptake of psychoactive substances. This is in line with findings of (Carpenter et al., 2018) who found a significance, (p-0.29) and those with employment either self-employed or employed is a risk factor for contributing to psychoactive substance use. However, other studies have found that unemployment is a significant contributor, (p=0.32). Those living with parents that include other relatives had a significant (p=0.003) contribution to psychoactive substance use. However, no study was found to confirm or negate this finding.

CHAPTER FIVE

SUMMARY, CONCLUTION AND RECOMMENDATIONS

5.1 SUMMARY

The purpose of this study is to investigate the demographics and characteristics of Somali youth. They live in Eastleigh, Nairobi. These psychological questions are divided into three parts. Illegal drugs, illegal drugs.

This study found that 75% of the youth used at least one substance. 53% used at least two substances and 25% used four or more substances. Miraa was the highest (47.9%) Illicit substance used followed by tobacco products (42.7%), alcoholic beverages (35.2%) and shisha at 31.9%. Among the illicit psychoactive drug users, cannabis use was found to be the highest at 23.9%, amphetamines 4.2%, heroin 3%, cocaine 2.8% and others at 7%; while prescription medication use was 10.3%. Psychoactive age of onset was found to be below 18 years of age in all categories of psychoactive substances.

Comorbidity of drug use was very common and relatively high. Comorbidity between Illicit psychoactive substances of between 32.0% to 73.5%, while those between illicit substances varied between 9.8% to 100% depending on drug used. For example, those who used cannabis were more likely to also use other illicit psychoactive substances. Those who used prescription medication had comorbid use of between 11.8% to 22.7%, while those who used illicit psychoactive drugs has a higher comorbid use of illicit psychoactive substances of between 26.7% to 100%.

Reasons given for psychoactive substance use were peer pressure, 66.0%, to get exposure to others, 30.3% and parental use and affordability at 1.9% each. Factors that significantly contributed to psychoactive substance use was gender (p=0.044), family income (p=0.014), the use of psychoactive substances by members of family (p=0.000) and living conditions, (p=0.003).

5.2 CONCLUSION

This study concludes that the Somali youth living in Eastleigh, Nairobi has a higher psychoactive substance use that has been contributed to peer pressure, gender, family use and income, living conditions among others. The use has an early onset of before 18 years of age. The youth will need preventive measures to help those who have not started, and this should start at an early age.

5.3 RECOMMENDATIONS

This study has several recommendations to the community, the policy makers (government), policy implementers (public health officers0, and other researchers.

5.3.1 Policy Recommendations:

i. Review training for Public Health Workers to include prevention of psychoactive drug use among primary school children in order to reduce early onset.
ii. Advocate for increased funding for mental health advocacy that include psychoactive drug use programs at the local suburb of Eastleigh and others.

iii. Develop appropriate psychological support for psychoactive drug use among youth in Easleigh and other suburbs in Nairobi.

iv. Provide appropriate affordable treatment programs for psychoactive drug users is the suburbs of Nairobi like Eastliegh.

v. Sensitize youth, teachers, community leaders on psychoactive drug use and on seeking professional psychological help and preventive measures.

5.3.2 Programmatic Recommendations:

i. Develop capacity for senior public health officers, community health workers and teachers on the problems related to psychoactive drug use.

ii. Establish programs that lead to the prevention of psychoactive drug use.

iii. Develop support, strengthen, and promote preventive, treatment and rehabilitative services for psychoactive drug use issues.

iv. Develop national information, education, sensitization and communication strategies for mental health and psychoactive drug use issues in all sections of Eastleigh.

v. Develop a data bank, networks, and linkages for referrals services for all youth with mental health and psychoactive drug issues.

vi. Incorporate other partners in mental health and psychoactive issues to allow educational talks among students of both primary and secondary schools.

5.3.3 Further Research Recommendation

The following studies are recommended to be done to assist in the development of evidence-based intervention programs for youth and in Eastleigh and other suburbs in Nairobi.

i. The relationship between early onset psychoactive drug use and demographic characteristics of younger youth below 18 years.
ii. The associations between living with own parents and relatives and the onset of psychoactive drug use.
iii. The relationship between mental health and use of psychoactive substance use.

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Appendix 1 Questionnaire

Introduction: (to be read to the participant)

Thank you for agreeing to take part in this brief interview about psychoactive substance products. I am going to ask you some questions about your experience of using these psychoactive substances across your lifetime and in the past three months. These substances can be smoked, swallowed, snorted, inhaled, injected or taken in the form of pills.

Some of the substances listed may be prescribed by a doctor (like amphetamines, sedatives, pain medications) for this interview; we will not record medications that are used as prescribed by your doctor. However, if you have taken such medications for reasons other than prescription, or taken them more frequently or at higher doses than prescribed, please let me know, while we are also interested in knowing about your use of various illicit drugs, please be assured that information on such use will be treated as strictly confidential.

SECTION A:

1. Your No…….Area……..

2. Age:

Serial No	***Age-Bracket***
a.	***18-19***
b.	***20-21***
c.	***22-23***
d.	***24-25***

3. Gender

a.	***Male***
b.	***Female***
c.	***Other***

4. Family

a. How many siblings do you have?

b. Are your parents married?

c. How long have your parents been living in Eastliegh?

d. Were you born in Eastleigh or you migrated to Eastleihg?

5. Educational Level

a. Primary level and below

b. Secondary Education

c. Middle College Education

d. i. Certificate

ii. Diploma

e. Undergraduate Education

f. Post Graduate

6. Marital Status

a. Married

b. Single

c. Divorced

d. Separated

e. Widowed

f. Other ***Explain……***

……

7. Religion

a. Muslim
b. Christian
c. Other

8. Occupation

a. Self employed
b. Business
c. Employed
d. Unemployed
e. Student
f.

9. Living Conditions

a. I live with my parents
b. I live with relatives
c. I live with friends
d. I live alone
e. I live with parents and other relatives
f. I live with spouse/partner
g. Other
explain…….

10. Family income

How would you describe your family income?

a. Very High
b. High
c. Moderate
d. Low
e. Very Low
f. I do not know

SECTION B:

QUESTION 1. In your life, which of the following substances have you ever used (non-medical use only)?

		Yes	No
a.	Alcoholic beverages (beer, wine, spirits, etc.)		
b.	Tobacco products (cigarettes, chewing tobacco, cigars, etc.		
c.	Khat (Miraa)		
d.	Shisha (hooker, Cocaine (coke, crack, etc.)		
e.	Cannabis (marijuana, pot, grass, hash, etc.)		

Amphetamine-type stimulants (speed, meth, ecstasy, etc.)

f. Heroin Inhalants (nitrous, glue, petrol, paint thinner, etc.)

g. Cocaine

h Inhalants

i Prescription Medication

Other- Specify----------

Probe if all answers are negative:	**If "No" to all items, stop interview**
Not even when you were in school?	**If "Yes to any of these items ask Question 2 for each substance ever used.**

Indicate 1, for every day, 2 for once or twice a week, 3 for twice a month, 4 for once a month, 5 for once to twice in three months, 6 for never used

Question 2

In the past three months, how often have you used the substances you mentioned (FIRST DRUG, SECOND DRUG, ETC)?	Once or Twice	Monthly	Weekly	Daily or almost Daily
a. Alcoholic beverages (beer, wine, spirits, etc.)				
b. Tobacco products (cigarettes, chewing tobacco, cigars, etc.				
c. Khat (Miraa)				
d. Shisha (hooker, Cocaine (coke, crack, etc.)				
e. Cannabis (marijuana, pot, grass, hash, etc.)				
Amphetamine-type stimulants (speed, meth, ecstasy, etc.)				

f. Heroin Inhalants (nitrous, glue, petrol, paint thinner, etc.)

g. Cocaine

h. Inhalants

i. Prescription Medication

Other- Specify----------

Question 3

During the past three months, how often have you had a strong desire or urge to use (FIRST DRUG, SECOND DRUG, ETC)?	**Once or Twice**	**Monthly**	**Weekly**	**Daily or almost Daily**
a. Alcoholic beverages (beer, wine, spirits, etc.)				
b. Tobacco products (cigarettes, chewing tobacco, cigars, etc.				
c. Khat (Miraa)				
d. Shisha (hooker, Cocaine (coke, crack, etc.)				
e. Cannabis (marijuana, pot, grass, hash, etc.) Amphetamine-type stimulants (speed, meth, ecstasy, etc.)				
f. Heroin Inhalants (nitrous, glue, petrol, paint thinner, etc.)				
g. Cocaine				

h. Inhalants

i. Prescription Medication

Other- Specify----------

Question 4

During the past three months, how often has your use of (FIRST DRUG, SECOND DRUG, ETC) led to health, social, legal or financial problems?	**Once or Twice**	**Monthly**	**Weekly**	**Daily or almost Daily**
a. Alcoholic beverages (beer, wine, spirits, etc.)				
b. Tobacco products (cigarettes, chewing tobacco, cigars, etc.				
c. Khat (Miraa)				
d. Shisha (hooker, Cocaine (coke, crack, etc.)				
e. Cannabis (marijuana, pot, grass, hash, etc.) Amphetamine-type stimulants (speed, meth, ecstasy, etc.)				
f. Heroin Inhalants (nitrous, glue, petrol, paint thinner, etc.)				
g. Cocaine				
h. Inhalants				
i. Prescription Medication				

Other- Specify----------

Question 5

During the past three months, how often have you failed to do what was normally expected of you because of your use of (FIRST DRUG, SECOND DRUG, ETC)?	**Once or Twice**	**Monthly**	**Weekly**	**Daily or almost Daily**
a. Alcoholic beverages (beer, wine, spirits, etc.)				
b. Tobacco products (cigarettes, chewing tobacco, cigars, etc.				
c. Khat (Miraa)				
d. Shisha (hooker, Cocaine (coke, crack, etc.)				
e. Cannabis (marijuana, pot, grass, hash, etc.)				
Amphetamine-type stimulants (speed, meth, ecstasy, etc.)				
f. Heroin Inhalants (nitrous, glue, petrol, paint thinner, etc.)				
g. Cocaine				
h. Inhalants				
i. Prescription Medication				
Other- Specify----------				

Question 6 & 7 for all substances ever used (i.e. those indorsed in Question 1)

Has a friend or relative or anyone else ever expressed concern about your use of (FIRST DRUG, SECOND DRUG, ETC.)?	**No, Never**	**Yes, in the past three months**	**Yes, but not in the past three months**
a. Alcoholic beverages (beer, wine, spirits, etc.)			
b. Tobacco products (cigarettes, chewing tobacco, cigars, etc.			
c. Khat (Miraa)			
d. Shisha (hooker, Cocaine (coke, crack, etc.)			
e. Cannabis (marijuana, pot, grass, hash, etc.)			
Amphetamine-type stimulants (speed, meth, ecstasy, etc.)			
f. Heroin Inhalants (nitrous, glue, petrol, paint thinner, etc.)			
g. Cocaine			
h. Inhalants			
i. Prescription Medication			
Other- Specify----------			

Question 7

Have you ever tried and failed to control, cut down or stop using (FIRST DRUG, SECOND DRUG, ETC.)?	**No, Never**	**Yes, in the past three months**	**Yes, but not in the past three months**
a. Alcoholic beverages (beer, wine, spirits, etc.)			
b. Tobacco products (cigarettes, chewing tobacco, cigars, etc.			
c. Khat (Miraa)			
d. Shisha (hooker, Cocaine (coke, crack, etc.)			
e. Cannabis (marijuana, pot, grass, hash, etc.)			
Amphetamine-type stimulants (speed, meth, ecstasy, etc.)			
f. Heroin Inhalants (nitrous, glue, petrol, paint thinner, etc.)			
g. Cocaine			
h. Inhalants			
i. Prescription Medication			
Other- Specify----------			

Question 8

Have you ever tried and failed to control, cut down or stop using (FIRST DRUG, SECOND DRUG, ETC.)?	**No, Never**	**Yes, in the past three months**	**Yes, but not in the past three months**
Have you ever used any drug by injection? (N O N-MEDICAL USE O NLY)			

SECTION C: PATTERNS OF USE

Question 1:

At what age did you first start using the substances you mentioned above?	**Between 18-20**	**Over 20**
a. Alcoholic beverages (beer, wine, spirits, etc.)		
b. Tobacco products (cigarettes, chewing tobacco, cigars, etc.		
c. Khat (Miraa)		
d. Shisha (hooker, Cocaine (coke, crack, etc.)		
e. Cannabis (marijuana, pot, grass, hash, etc.) Amphetamine-type stimulants (speed, meth, ecstasy, etc.)		
f. Heroin Inhalants (nitrous, glue, petrol, paint thinner, etc.)		

g. Cocaine

h. Inhalants

i. Prescription Medication

Other- Specify----------

Question 2

What are the causes of psychoactive substance use?

a. Peer Pressure
b. To gain courage
c. To exposure to others
d. Unemployment
e. Drop out of school
f. Parental use
g. Availability

h. Cost friendly
i.
Other- Specify----------

Question 3: Family use

In your family, who else uses or was using the psychoactive substance you are using?	Tick as appropriate	Indicate which substance
a. Mother		
b. Father		
c. Brother(s)		
d. Sister(s)		
e. Uncle		
f. Auntie		
g. Grandparents		
h. Others		

THANK YOU FOR TAKING PART IN THIS STUDY

Appendix IV Consent Explanation

Dear Participants,

My name is **Aden Abdi Korio,** a Master of Public Health student at the Department of Public Health, Nutrition and Dietetics, Kenya Methodist University. I am carrying out a study to determine the "prevalence and *patterns of psychoactive substance use among Somali youth living in Eastleigh, in Nairobi".* This is part fulfillment for the degree award, and I am being supervised by:

1. Dr. Eunice J. Nyavanga(Tel No. 0722626240)
   Lecturer of Clinical Psychology
   Kenya Methodist University

2. Dr. Bon Oirere (Tel No. 0721247287)
   Lecturer of Public Health
   Kenya Methodist University

I am requesting you to participate in the study voluntarily by answering a set of questions that ask you about your socio-demographic data, general health data and use of psychoactive drugs. The socio-demographic questionnaire has been developed by me while the other instruments used for psychoactive drug use have been developed and used in many studies in various parts of the world.

This study has been approved by Kenya Methodist University Research and Ethics Committee and permitted by the Ministry of Education Science and Technology.

Your participation is completely voluntary, and you may withdraw your participation anytime in the course of completing the questionnaire. I also request you that if you accept to complete the questionnaire, please do so as truthfully as possible. It takes about 40 minutes to complete. Do not write any personal identity. Anonymous serial numbers will be used to ensure confidentiality. Once you have filled the questionnaires, please fond and insert into the envelopes provided and seal them before inserting in the ballot boxes provided. This data will only be accessible to the researcher and will be used for purposes of research only.

There are no risks to you except that it may be painful emotionally. You will not directly benefit for participating in the study, but you may want to talk to somebody if you identify with symptoms being inquired and want assistance to stop using any psychoactive substance. You can get in touch with me or my supervisors (whose contacts has been provided above). The administration of this area, the ministry of health will get findings and the recommendations which they may use to improve your living environment.

If you choose to complete the questionnaires, it will be an indication that you have voluntarily consented to participate in the study. If you need clarification you can get in touch with me or my supervisors whose telephone numbers are indicated above against their names.

Thank you in Advance.

Aden Abdi Korio (Tel No. 0722838663)
Master of Public Health
Department of Public Health, Nutrition and Dietetics
Kenya Methodist University