

**PREVALENCE OF SUICIDALITY AMONG PEOPLE WITH SUBSTANCE
USE DISORDERS AT MATHARI NATIONAL TEACHING AND REFERRAL
HOSPITAL IN NAIROBI COUNTY, KENYA**

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DECLARATION OF ORIGINALITY FORM

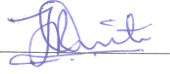
I declare that this is my original work and has not been presented in any other high institution for any award.

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APPROVAL OF SUPERVISORS

This Research Dissertation has been submitted for examination with our approval as the University Supervisors.

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DEDICATION

This dissertation is dedicated to my late father and my daughter.

ACKNOWLEDGEMENT

I would like to acknowledge my family for their support, my colleagues, staff and the administration of Mathari National Teaching and referral hospital for their support during this process.

I would also like to acknowledge my supervisors Dr Anne Mwayo And Dr. Fredrick Owiti for their support and guidance in training and research.

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ABSTRACT

Introduction: The World Health Organization estimates that within the next five years 15 to 30 million people around the world will attempt suicide every year, with 10% of these being successful in their attempts. Documented evidence shows that substance use disorders are a major risk factor for suicidality. Different studies have found conflicting results on the prevalence of suicidal behaviors among people with substance use disorders. There is paucity of literature in Kenya showing estimate prevalence of suicidality among people with substances use disorders.

Purpose: This study sought to determine the prevalence of suicidality among patients with substance use disorders attending outpatient clinics at Mathari National Teaching and Referral Hospital.

Materials and Methods: This was a cross-sectional study. Two hundred and eleven patients with history of substance use disorders attending outpatient clinics at Mathari hospital were invited to participate in the study upon giving informed consent. A socio-demographic questionnaire was used to collect socio-demographic characteristics. The World Health Organization's Alcohol, Smoking and Substance Involvement Screening and Test (ASSIST) tool was used to measure the type and duration of substance use while the Becks Scale for Suicidal Ideation (BSSI) was used for detecting and measuring the current intensity of the patients' specific attitudes, behaviors, and plans to commit suicide. Collected data was double-entered into MS-Access software and checked for errors prior to commencement of data analysis using STATA software.

Results: A Total of 211 participants participated in the study. The mean age of the respondents was 30.8 years. Of the 211 respondents, males (197) at 93.4 % were considerably more than the females at 6.6 % (14). Christians were considerably more than the Muslims and the other religions. Majority of the respondents attained secondary education as their highest level of education with university having the least number. Majority of the respondents were casual laborers. Majority of them were never married while a handful were divorced, separated or widowed. The mean income of the respondents was ksh16715.6 with majority earning less than Ksh. 5000.

The prevalence of lifetime suicidal attempts was 25.1% . with the proportion of participants with active suicidal ideation was 6.6% which is higher than the prevalence of suicide ideation and attempts in the general population.. Alcohol was the most commonly used substance followed by cannabis, tobacco, amphetamines and cocaine. Opioids, sedatives and hallucinogens had the lowest prevalence.

Participants who were using cocaine at risky levels were about 9 times more likely to have suicidal ideation (A.O.R.=9.38, 95% C.I. 1.88-46.73) as compared to those who do not use cocaine/ use at low risk levels. Respondents who had previously attempted suicide were about 8 times more likely to have suicidal ideation (A.O.R.=7.73, 95% C.I. 2.19-27.20) as compared to those who had never attempted suicide.21 % of participants had comorbidities with depression (10%),bipolar mood disorders (8.1%) and schizophrenia (3.8%).no significant association was established between comorbidities and suicidality.

Conclusion: Risk of suicide is higher among people with substance use disorders compared with the general population. There is need for clinicians to routinely and continuously screen patients with substance use disorders for suicidal thoughts and behaviors throughout treatment.

LIST OF ABBREVIATIONS/ACRONYMS

WHO	World Health Organization
SUD	Substance Use Disorder
DSM 5	According to Diagnostic and statistical manual of mental disorders (5th Edition)
ICD 10	International Statistical Classification of Diseases and Related Health Problems (10 th Revision)
BSSI	Beck Scale for Suicide Ideation
ASSIST	Alcohol, Smoking and Substance Involvement Screening Test

DEFINITION OF OPERATIONAL TERMS

Suicidality: Refers to thinking about or being preoccupied with thoughts of suicide which is the action of killing oneself. For purposes of this proposal, suicidal thoughts or suicidal ideation will be used to refer to suicidality.

Substance Use Disorder: A state through which the use of one or more substances might lead to the causation of distress or clinical impairment.

CHAPTER ONE

INTRODUCTION

1.1. Background of the Study

According to World Health Organization (WHO), substance use disorder and suicidality are among some of the major public health concerns in the world (WHO, 2017). This is largely due to the fact that both separately and together, may result in the causation of direct and indirect costs on the individuals, their families and the society at large (Hilts & Greene, 2018). Substance use disorder can be defined as the utilization of harmful psychoactive substance like alcohol and other illicit drugs which may result in health consequences (WHO, 2017).

Substance use disorder and suicidality can co-exist together and treatment thereby means dealing with psychoactive substances and severe psychiatric disorder (Sakar, Sen, & Ray, 2017). According to Diagnostic and statistical manual of mental disorders (5th Ed.) (DSM 5) (American Psychiatric Association, 2013), substance use disorders mainly occurs from a list of 10 drugs that include alcohol, cannabis, inhalants, stimulants, hallucinogens, cocaine, tobacco, sedatives, opioids, caffeine and other unknown substances

According to WHO (2018), at least 31 million people in the world have substance use disorders, with at least 3.3 million deaths occurring as a result of alcohol use. On average all individuals aged 15 years and above consume at least 6.2 liters of alcohol every year. Additionally, at least 11 million individuals inject themselves with drugs in which 1.3 million live with HIV, 5.5 million with hepatitis C and at least 1 million living with both.

According to a study done by Esang and colleagues (2018), persons with substance use disorders are 10-14 times at more risk of suicide compared to persons without, further, alcohol and opiates were associated with the highest risk of suicidality with 22 % of deaths attributed to suicide having alcohol intoxication as a contributor while opiates were involved in 20%, other substances included marijuana at 10.2%, cocaine 4.6% and amphetamines at 3.4 %. Co morbid depression and substance use disorder have a long term suicide risk of 16.2 % (Esang, Ch, & Ahmed, 2018). This is supported by other studies conducted in other settings (Dragisic, Dickov, Dickov, & Mijatovic, 2015; Mark ilgen, 2011).

Borges and colleagues point out that substance use disorder is a significant predictor of suicidality especially for alcohol, heroine and inhalants use. The number of substances used is a more important predictor of suicidal behavior than the types of substances used (Borges, Walters, & Kessler, 2000). In persons with suicide ideation current substance use confers a significant risk of unplanned suicide (Borges et al., 2000).

According to Ilgen and Kleinberg (2011) male gender and older age are associated with increased risk of non-fatal attempts and deaths by suicide. Men who have substance use disorders are 2-3 times more likely to commit suicide compared to non-users (Dragisic et al., 2015). Among women, substance use disorders increase the risk of suicide 6.6-9 times .Unmarried or divorced persons with substance use disorders have a higher risk of suicide than those married (Dragisic et al., 2015). Previous suicide attempts indicate a greater risk for subsequent suicidal behavior among persons with substance use disorders (Ilgen, et al 2011). Another study also reveals

that a majority of the individuals who are at risk of substance use disorder are male mostly from rural areas (Goodman, Puffer, & Keiser, 2017).

According to WHO (2017), cannabis is the most commonly used substance in Africa with the highest prevalence being reported in areas like West and Central Africa with rates ranging from 5.2% to 13.5%. Additionally, Amphetamine-type stimulants like ecstasy has risen to become the second most commonly used substance in Africa.

In Kenya, at least 11.7% of young people who are aged 15-24 years are current users of alcohol, 6.2% use tobacco, 4.7% use khat and 1.5% are cannabis users (NACADA, 2017). Most users begin using these substances when they are as young as 8 years and this could depict the extent of suicide cases that may result due to substance use disorders (Maithya, Okinda & Mung'atu, 2015). There is scarcity of literature to inform on the association between substance use disorders and suicidal behavior (Breet, Goldstone & Bantjes, 2018). Therefore, the paucity of literature on the relationship between substance use disorders and suicidality necessitates this study. This study will therefore aim to determine the prevalence of suicidality among people with substance use disorders.

1.2.Problem Statement

Annually, deaths which are attributed to suicide takes up the lives of at least 800, 000 individuals across the world, a majority of the individuals who are at risk of suicidal tendencies belong to the age cohort of 15-29 years (WHO, 2018b). Suicidality is mainly related to a number of factors which include depression, socio-demographic characteristics and more importantly substance use disorders (SAMHSA, 2016).

According to Cluver, Orkin and Boyes (2015), suicidality is on the rise in low and middle income countries in Africa where the prevalence of suicidal attempts, plans and ideation have been estimated at 3.2%, 5.8% and 7.2% respectively. The same authors point that there are minimal studies conducted to determine the number of cases which are attributed to substance use disorders.

In Kenya, most studies conducted are on the prevalence of suicidality (Jenkins, Othieno, Omollo, et al., 2015; Ndetei, Khasakhala, Mutiso, & Mbwayo, 2010) and substance use disorders (Atwoli, Mungla, Ndung, Kinoti, & Ogot, 2011; Jenkins, Othieno, Onger, et al., 2015; Kinyanjui & Atwoli, 2013; Ndetei et al., 2009; Othieno, Obondo, Kathuku, & Ndetel, 2000) respectively but none of the studies has determined the prevalence of suicidality among people with substance use disorders, hence the necessity of this study.

Objectives of the Study

1.2.1. Main objective

The main objective of the study was to determine the prevalence of suicidality among people with substance use disorders attending outpatient clinics at Mathari Teaching and Referral hospital.

1.2.2. Specific Objectives

- 1) To find out the prevalence of suicidality among people with substance use disorders attending outpatient clinics at Mathari Teaching and Referral Hospital.

- 2) To identify the substances commonly used by people with substance use disorders attending outpatient clinics at Mathari Teaching and Referral Hospital.
- 3) To determine if there is an association between suicidality and substance use disorders among people with substance use disorders attending outpatient clinics at Mathari Teaching and Referral Hospital.

1.3. Research Questions.

- 1) What is the prevalence of suicidality among people with substance use disorders attending outpatient clinics at Mathari teaching and referral hospital?
- 2) What are the substances commonly used by people with substance use disorders attending outpatient clinics at Mathari teaching and referral hospital?
- 3) Is there an association between suicidality and substance use disorders among people with substance use disorders attending outpatient clinics at Mathari teaching and referral hospital?

1.4. Justification of the Study

Mental health problems are some of the known risk factors linked to suicidal ideation, suicide attempts, and suicide mortality with approximately nine in every ten cases of completed suicide satisfying the criteria for 1 or more diagnosable psychiatric conditions (Kessler, Borges, & Walters, 1999). Top among these mental health problems is substance use disorders. Substance use disorder is a major concern in the Kenyan society especially due to the fact it disrupts the normal functioning of individuals who are mostly young and are supposed to be productive member of the society (Volkow, Poznyak, Saxena, Gerra, & Network, 2017). Understanding the prevalence of suicidality in persons with substance use disorders, suicidality can be

reduced with proper rehabilitation and care for those who are affected in Kenya. This is not currently understood and therefore care cannot be planned or implemented.

1.5. Significance of the study

This study was critical in capturing data on the most commonly used substances and therefore help in the creation of proper action plans to help reduce their infiltration to the youth. It was also instrumental in estimating the prevalence of suicidality among people with substance abuse disorders and therefore offers reliable data which can be used when formulating interventions for people with substance use disorders. It will also help in formulation of action plan to prevent and reduce self-harm and deaths among persons with substance use disorders because of the association, between suicidal behaviors and substance use disorders established.

1.6. Conceptual Framework

Participant's sociodemographic characteristics among them age, sex, marital status, education level and type of substance used, extent and duration of has been shown to moderate or buffer association between substance use disorders and suicidal ideations (Mark ilgen, 2011). Further, the presence of other cormorbid disorders in a patient with substance use disorder increases the risk of suicidal ideation and attempts (Large, Galletly, Myles, Ryan, & Myles, 2017; Nock, Hwang, Sampson, & Kessler, 2010). Also, some substances, or use of multiple substances have been shown to increase the of suicide ideation than others (Borges et al., 2000; Nock et al., 2008). These variables are operationalized as shown in Figure 1 below.

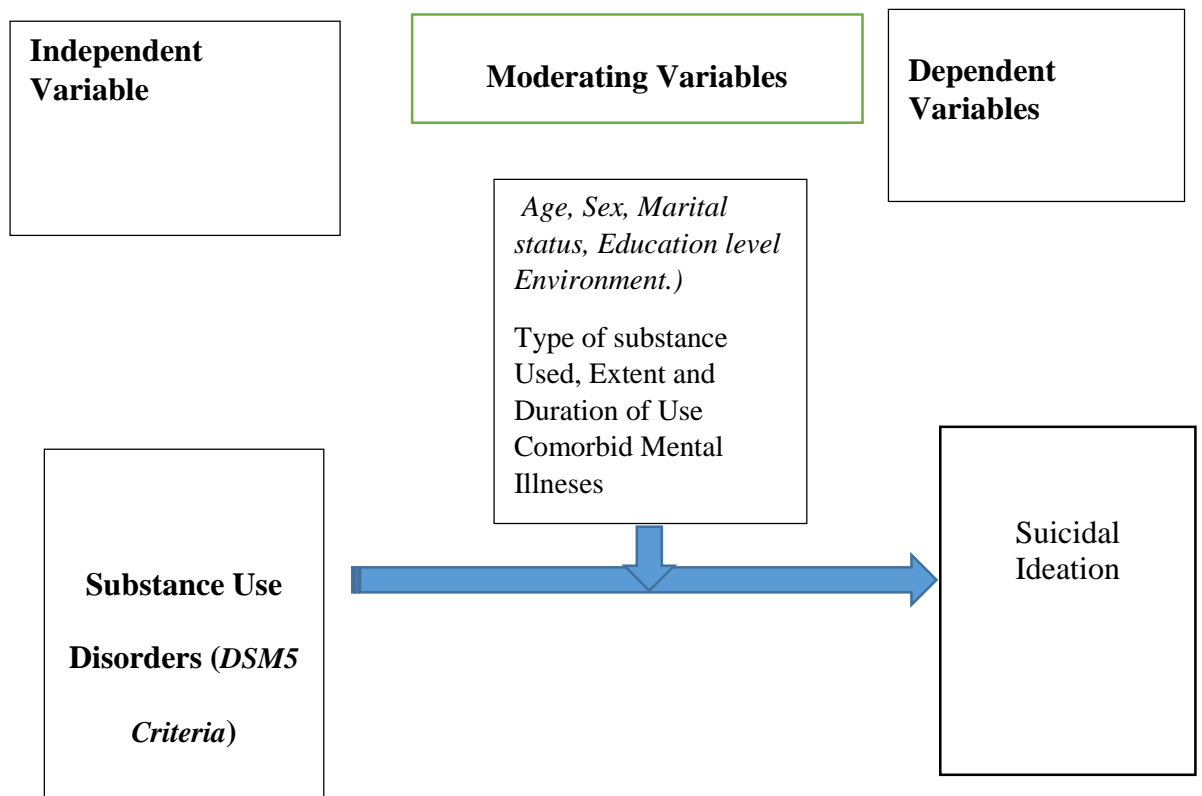


Figure 1: Conceptual Framework

CHAPTER TWO

LITERATURE REVIEW

2.1.Introduction

This presented literature from other studies in relation to substance use disorders and its impact on the causation of suicide. It also presented a theoretical framework which presents an association between the suicide and commonly used substances.

2.2.Theoretical framework

2.2.1. Theory of Addiction

Theory of addiction was developed by Robert West who was working as the Director of Tobacco Studies at the Cancer Research UK Health Behaviour Unit at University College London (West, 2013). According to this theory, substance use disorders and addiction are mainly attributed to cognitive impairments experienced by an individual (West, 2013). Individuals who experience cognitive difficulties, mood disturbance and other illnesses related to their mental health are highly likely to be addicts. Additionally, these individuals may also experience both addiction and mental health disorders as they occur in unison (co-morbid).

This theory also proposes that addiction and substance use disorders can be attributed to a number of other possible factors. Firstly, an individual may be exposed to harmful behaviors that are attributed to an abnormality that may manifest as a mental illness. Secondly, the environment can also play a critical role in relation to substance use disorders to an individual as they may be exposed to unhealthy behavior within the community. Their substance use mainly serves as a response to their environment. Lastly, according to West's theory, an individual's feelings can lead to the

development of certain behavior in which their thoughts and feelings become dysfunctional in turn influencing their substance use practices.

2.3.Prevalence of suicidality among people with substance use disorders

In the world, there at least 800,000 individuals who are aged 15-29 years who commit suicide on an annual basis (WHO, 2018b). Substance use disorder is second after depression as a major risk factor of suicidal tendencies (Safa, Boroujerdi, Talischi, & Masjedi, 2014). This increases in the event that substance use disorders co-occur with depression or any other mental illnesses like post-traumatic stress, anxiety and schizophrenia (Gates et al., 2010) Substance use disorders mainly results to suicidality due to loss of inhibition, causation of impulsivity and impaired judgment (Stone & Crosby, 2014). Substance use disorder has also been associated with alterations in normal brain functions which in turn develop into depression, can cause disruptions in relationships and can also lead to a loss in social connection (Chanraud et al., 2007).

In the world, at least 40% of all individuals who seek treatment for substance use disorders report at least one suicide attempt at some point in their lives. Further, acute alcohol intoxication is associated with the causation of 30-40% of suicide attempts (SAMHSA, 2016). Additionally, 40-60% of all individuals who commit suicide are usually intoxicated at the time of their death (SAMHSA, 2016). In the United States, 1 in every 12 individual's which accounts for 21.5 million individuals had a substance use disorder (CDC, 2014).

Minimal studies have been conducted in Africa in relation to the prevalence of substance use disorder and suicidality. A study conducted in South Africa however revealed that substance use disorders can blunt the bodily symptoms and lead to the causation of violent acts (Sommer, Hinsberger, Elbert, & Holtzhausen, 2017).

According to a study conducted by (Mars, Burrows, Hjelmeland, & Gunnell, 2014) there are over 34,000 suicides which occur in Africa with an overall incidence of 3.2 per 100,000

A study done in Uganda indicates the prevalence of suicidality among people with substance use disorders is 13.3 % (Swahn, Palmier, Kasirye, & Yao, 2012). Ojuade and Munene (2018) notes that suicide ideation in Kenya is at 27.9% especially among females aged 18-21.

2.4. Commonly used substances by people with substance use disorders

2.4.1. Definition of substance use disorder

This can be defined as a state through which the use of one or more substances might lead to the causation of distress or clinical impairment (Agrawal, Heath, & Lynskey, 2011; World Health Organization, 2005). It is very common and is also very difficult to treat and it is mostly associated with poor prognosis (Roberts, Roberts, Jones, & Bisson, 2015).

2.4.2. Alcohol

Alcohol is mainly consumed by people as a way of socialization, relaxation or celebration largely due to the fact that it is a depressant. These includes drinks like beer, wine and liquor all which offers lowered inhibition, impaired coordination, slow reflex, slurred speech, intoxication, unsteady walk among other effects. Alcohol intoxication may increase with mixture with other depressants, may cause accidents due to impaired judgment, damaged organs and alcohol poisoning (Zucker, 2015).

2.4.3. Marijuana

Marijuana, also known as Cannabis Sativa is a drug acquired from a hemp plant which has psychoactive properties that alter the normal functioning of the brain. Marijuana is associated with a number of physical symptoms which include dry mouth, reduced concentration, red eyes and concentration. The usage of marijuana can lead to the causation of panic reactions, mental and emotional, craving and impaired short term memory. When used in combination with alcohol it may lead to the causation of increased heart rate, increased blood pressure and slowed rate in mental processing (Grucza, Agrawal, & Krauss, 2016).

2.4.4. Heroin

This is a natural substance which is mainly acquired from the seed pod of opium poppy plants. The possible short term possible health effects of heroin include euphoria, nausea, slowed breathing and heart rate. In long term health effects, it may lead to the causation of collapsed veins, abscesses, kidney and liver disease, constipation and infection in the lining of the heart. When used in combination with alcohol, it leads to the causation of slow heart rate and breathing, coma and it might lead to causation of death (Martins, Sarvet, & Santaella-Tenorio, 2017).

2.4.5. Over-the-counter drugs

These are drugs which are mainly used for medicinal purposes however when used in higher than recommended dosage they may be psychoactive. Short-term health effects include cough relief, slurred speech, an increase in heart rate and dizziness. They may also lead to breathing complications and blood pressure. It is also critical to note that

that there is no treatment which has been recommended for treatment of addiction against over-the counter-drug addiction (SAMHSA, 2014).

2.4.6. Steroids

These are substances which are mainly utilized in the treatment of conditions which are attributed to low steroid hormones in the body. A majority of people mainly use these drugs in order to enhance both athletic, physical appearance and sexual performance. The short-term effects of steroids include oily, yellowish skin and infections and in long term it causes kidney and liver damage, high blood pressure, enlarged heart, aggression, delusions and impaired judgment. When mixed with alcohol it also leads to increased risk of violent behavior and even to an increase in depression and suicide attempts (do Amaral & Cruz, 2017).

2.4.7. Tobacco

This is mainly obtained from leaves which are dried and fermented which are smoked, chewed, vaporized and snorted. The short-term health effects of tobacco include an increase in blood pressure, heart rate and in long term it can lead to the causation of lung cancer, heart disease, cataracts and pneumonia. It is also associated with the causation of irritability, sleep problems and depression (David, Laude, Owens, & Gray, 2017).

2.4.8. Cocaine

Cocaine is an addictive stimulant which is mainly acquired from coca plant leaves and it can be snorted, smoked and injected. It leads to the causation of narrowed vessels, increased body temperature, violent behavior, coma, heart attack, and seizure and heart rhythm problems. In long term, it can lead to difficulty when swallowing due to

snorting, bowel infection, decreased blood flow, poor nutrition and lung damage. When used alongside alcohol it may lead to an increased risk of cardiac toxicity (Snyder, Zuniga, & Steinberg, 2018).

2.4.9. Inhalants

These are mainly composed of solvents, aerosols and gases from spray paints, glues and markers which are inhaled through the mouth or nose. The short term effects of inhalants include nausea, slurred speech, headaches, sudden sniffing death caused by heart failure, suffocation and convulsions. The long term effects include liver and kidney damage, bone marrow spasms and lack of oxygen (Hassan, Bhatia, & Bhatia, 2017).

2.4.10. Khat

This is a shrub that mostly thrives in the East African and Southern Arabia which contains cathinone and cathine that have psychoactive properties. There is an estimated 20 million individuals who use the drug in Africa and Arabian regions due to its stimulant like effects. It is mostly chewed or brewed as tea and can result in euphoria, increased alertness and high blood pressure, and loss of short term memory. Khat has also been associated with the causation of gastrointestinal disorders like constipation, ulcers and an increased risk of heart attack. Heavy usage of khat can also lead to the causation of paranoia, hallucinations, fear and anxiety (Duesso, Matthews, & Ferguson, 2016).

2.4.11. Ecstasy/molly

Ecstasy is a synthetic and psychoactive drugs which are similar to stimulant and amphetamine and hallucinogen. The tablets are mainly swallowed or snorted and they

cause increased heart rate and blood pressure, kidney failure, sharp rise in body temperature and even death. It can lead to the causation of confusion, depression, increased anxiety, impulsiveness and problems with attention. Additionally, when used with alcohol, it may lead to an increased risk of neurotoxic effects (Arria, Bugbee, & Calderia, 2015).

2.4.12. Methamphetamine

This is an extremely addictive stimulant which is usually in form of powder or pills which can be swallowed, snorted, smoked or injected. The short-term effects of methamphetamine causes increased wakefulness, irregular heartbeat, breathing and temperature. The long –term effects of the drug include anxiety, mood problems, weight loss, severe dental problems and paranoia. When used with alcohol it increases the risk of alcohol overdose and high blood pressure (SAMHSA, 2014).

2.5. Association between Substance Use and Suicidal behaviors

Mental illnesses are known risk factors linked to suicidal ideation, suicide attempts, and suicide mortality (Large, Galletly, Myles, Ryan, & Myles, 2017; Nock, Hwang, Sampson, & Kessler, 2010). Top among these mental health problems is substance use disorders (Poorolajal, Haghtalab, Farhadi, & Darvishi, 2016). This association is moderated by different sociodemographic characteristics and the type of substances used. For instance, a study conducted in the USA by Mark found that men who have substance use disorders are more likely to commit suicide compared to women with substance use disorder (Mark ilgen, 2011). The same author pointed out that older persons with substance use disorders are at higher risk of suicide compared to younger ones.

Different studies have found conflicting results on the prevalence of suicidal behaviors among people with substance use disorders. For instance, results from the United States 2013 National Survey on Drug Use and Health found the prevalence of suicidality among person with illicit drug disorders at 16.4% (SAMHSA, 2014). Another study estimates the prevalence of suicide attempts among persons with substance use at 17 % (Bakhshani, Bahareh, Bakhshani, & Lashkaripour, 2010). A meta-analysis on substance use disorders and suicidality showed that people with substance use disorders are 7.23 times more likely to commit suicide (Poorolajal et al., 2016).

Use of multiple substances is a more significant indicator of a higher risk of suicide compared to the type of substance used (Borges et al., 2000; Nock et al., 2008). Alcohol with comorbid substance use disorders confer a 16. 2% risk of suicidal behavior (Esang et al., 2018). There is paucity of evidence on the prevalence of suicidality among people with substances use disorders.

CHAPTER THREE

METHODOLOGY

3.1.Study Design

The study utilized analytic cross-sectional design to assess the prevalence and correlates of suicidality among persons with substance use disorders.

3.2.Study Area description

This study was conducted at Mathari National Teaching and Referral hospital. This is Kenya's main psychiatric referral hospital located in Nairobi County and has been in operation since 1910. The hospital functions as a national referral hospital for patients with mental illness. Currently the hospital has an inpatient capacity of 600 beds with two and four female and male general wards respectively. Also, the hospital has two semi-amenity and one amenity wards. The hospital also has a rehabilitation unit for patients with substance use disorders. Other services offered in the hospital include: Outpatient services (psychiatric, general and medical clinics), Maternal and Child Health (MCH) clinic, Comprehensive Care Center (CCC), Methadone Clinic and forensic unit. Approximately 34% of patients admitted at Mathari Teaching and Referral Hospital have substance use disorder (Ndeti et al., 2008).

3.3.Study Population

The study respondents were both new and old adult patients with substance use disorders attending outpatient clinics at Mathari Teaching and Referral Hospital.

3.3.1. Inclusion Criteria

- i. Respondent must have a history of substance use disorder.
- ii. Respondents must be attending any of the outpatient clinics at Mathari Hospital.
- iii. Respondent must give consent in writing.
- iv. Respondent must be aged 18 years and above.

3.3.2. Exclusion Criteria

- i. Respondent who declines to give consent as appropriate.
- ii. Respondent who are too sick and unable to participate.
- iii. Respondents who are intoxicated at the time of data collection.

3.4. Sampling

3.4.1. Sample Size Determination

The sample size for this study was derived using Fisher's formula with precision/absolute error of 5% and type 1 error of 5% (Rosner, Bernard, 2010).

$$n = \frac{Z_{1-\alpha/2}^2 p(1-p)}{d^2}$$

Where;

n = the desired sample size.

$Z_{1-\alpha/2}$ = the standard normal variate (at 5% type 1 error, $P < 0.05$) = 1.96

$p = p$ is the estimated proportion of suicidality attributable to substance abuse disorders in a previous study (Swahn et al., 2012).

$d =$ is the absolute error or precision-decided by researches usually 5%.

Therefore, the sample size shall be;

$$\frac{(1.96)^2 * (0.133) * (0.867)}{(0.05)^2}$$

= **176** respondents

For this study we required a minimum of 176 subjects to be enrolled in the study.

Assuming a 20% non-response rate/lack of compliance, the sample size was increased to **211** respondents.

3.4.2. Sampling Procedure

Purposive sampling was used to recruit respondents into the study. All new and old patients with a substance use disorder diagnosis were included in the study. This was done until the minimum sample size is reached. The principle investigator explained all the study details to eligible participants and then sought their consent to participate. If the participant consented to participate, then they were invited to the private room where data collection took place.

3.5. Variables

3.5.1. Independent Variables

Substance use disorder

3.5.2. Intervening/Moderating Variables

- Socio-demographic Characteristics: Age, Sex, Education Level, duration of care, Occupation, Economic status, Ethnicity.
- Type/extent of substance abuse
- Comorbidity Mental illnesses

3.5.3. Dependent Variables

- Suicidal ideation

3.6.Data Collection

3.6.1. Instruments

Data was collected by means of self-administered questionnaires. The following data collection tools were used to collect data to meet the study objectives:

1. A researcher designed sociodemographic questionnaire to document patient's sociodemographic and economic characteristics. This also captured any comorbidity mental illnesses a patient may be suffering from, as documented in the patient's file.
2. The Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) to assess substance use: ASSIST was developed for the WHO by an international group of researchers and clinicians as a technical tool to assist with early identification of substance use related health risks and substance use disorders in primary health care, general medical care and other settings. The ASSIST items are reliable and feasible to use as part of an international screening test with good psychometric properties (Group, 2002) and has been

widely validated and used in multiple populations in low and middle income countries including Kenya (R Humeniuk, Henry-Edwards, Ali, Poznyak, & Monteiro, 2011; Rachel Humeniuk & Ali, 2006; Mokaya et al., 2016; Onifade, Bello, Abiodun, Sotunsa, & Ladipo, 2014)

Scoring of the ASSIST questionnaire: Each question on the ASSIST has a set of responses to choose from, and each response from question 2 to 7 has a numerical score. The interviewer circles the numerical score that corresponds to the participant's response for each question. At the end of the interview the scores from question 2 to 7 are added together across each individual substance to produce an ASSIST risk score for each substance. The participant will see the ASSIST feedback report card which has the scores recorded to provide feedback as part of the brief intervention.

Interpretation of ASSIST scores: The ASSIST determines a risk score for each substance which is used to start a discussion on brief intervention with the participant about their substance use. The score obtained for each substance falls into the following categories: lower, moderate or high risk, which determines the most appropriate intervention for the level of use (no treatment, brief intervention or referral to specialist assessment and treatment respectively).

3. The Beck's Scale for Suicide Ideation (BSSI) is a 21-item self-report instrument for detecting and measuring the current intensity of the patients' specific attitudes, behaviors, and plans to commit suicide during the past week. A principal factor analysis with psychiatric inpatients (Beck, Steer, Beck, & Newman, 1993) revealed that the BSSI is composed of three factors:

Desire for Death (5 items), Preparation for Suicide (7 items) and Actual Suicide Desire (4 items). The BSI has highly internal reliability with Cronbach alpha coefficients ranging from .87 to .97 (Esfahani, Hashemi, & Alavi, 2015). The BSSI has moderate test-retest reliability ($r = .54$) over a one week period with psychiatric inpatients. The BSSI is highly correlated with the clinically rated SSI with correlation coefficients ranging from .90 for psychiatric inpatients to .94 for outpatients (Beck et al., 1993). The internal reliability, test-retest stability and concurrent validity of this measure have been established (Esfahani et al., 2015). The suicide ideation items conform to the definition of suicide ideation established by Gould et al, (1990). It has been used widely in Kenyan studies (Muriungi & Ndeti, 2013).

3.6.2. Data collection and Consenting Procedures

Data was collected at the outpatient clinics when the patients came for their routine check-ups. Both new and old patients were included in the study. Nurses working at the clinics were informed of the study with emphasis on inclusion and exclusion criteria. They were requested to invite potential participants to a private room for consenting and data collection, after the participants were attended to by the doctor. The principal investigator sought consent from the participants and was the one collecting the data. He read the consent document to the potential participant, explained everything the patient did not understand and answer individual questions. Once a participant agreed to continue, he or she was given the consent document to sign. He or she was given a copy of the consent document to go with. The investigator then started data collection immediately the consent form had been signed. All this took place in a private room to ensure privacy and confidentiality. Only the

respondents who gave informed consent in writing or thumbprint participated in the study. The entire data collection process took approximately 40 minutes.

3.7. Pretesting of Study Tools

All the tools were pretested among five patients selected from the psychiatric outpatient clinic in Kenyatta National Hospital. Any ambiguity or errors discovered during the pre-test were corrected before the start of actual data collection.

3.8. Data Management

All filled questionnaires were kept in a cabinet under lock and key. This process happened each day until required sample size is achieved. Only the researcher had the key to the cabinet.

Upon completion of data collection, all data was entered into MS-Access using only the numeric identification code to identify participants. The data entry was performed by the researcher in a password protected computer. On completing data entry, data was checked for errors prior to the commencement of data analysis using STATA software. For descriptive statistics, frequency tables, pie- or bar charts were provided to demonstrate the distribution of data in the case of discrete variables. In the case of continuous variables, means and standard deviations were provided. For inferential statistics, bivariate and multivariate analysis was conducted. At the level of bi-variate analysis, Pearson's Chi-square was used to investigate the relationships between the study variables and provide unadjusted odds ratios. At multivariate analysis, adjusted odds ratios were provided after controlling for factors that were found to be significantly associated with outcome variable at a bivariate level.

3.9. Study Results Dissemination Plan

Results from this study will be disseminated through presentations at the psychiatric departments, workshops and through scientific publications in peer reviewed journals.

3.10. Ethical Considerations

In order to ensure that this study adheres to the ethical principles of respect, beneficence and justice and in order to protect and prevent unnecessary risk to respondents, ethical clearance was sought from the KNH/UON Ethics Review Committee. The appropriate ethical and consent forms are attached as appendices. Only patients who gave informed consent in writing or thumbprint were interviewed for the study.

The investigator obtained consent in a language that respondents understood. This happened in one of the private rooms that was reserved for this study. He read the consent document to the potential participant, explained everything he or she did not understand and answered individual questions. Once a participant consented, he or she was given a copy of the consent form and the other kept, and then invited to a private room for data collection.

Study limitations

Comorbidities were extracted from the patient's files and this may have led to some diagnoses being missed. This study was carried out in a public hospital hence the findings may not be projected to those who seek services in private hospitals. Data collection during the COVID -19 may have affected some sociodemographic characteristics of the participants e.g .geographical distribution may have been limited by the lockdown.

CHAPTER FOUR

RESULTS

4.1 Sociodemographic characteristics

A total of 224 participants were approached out of which 211 participants agreed, consented and participated in the study. The mean age of the respondents was 30.8. Those aged 18-30 were more compared to the rest of the age groups with those aged 41 and above having the least number. Of the 211 respondents, males (197) were considerably more than the females (14). Christians were considerably more than the Muslims and the other religion. Majority of the respondents attained secondary education as their highest level of education with university having the least number. Majority of the respondents were casual laborers, a handful being farmers (17) and professionals (19). Majority of them were never married while those who were divorced, separated or widowed were the fewest. The mean income of the respondents was 16715.6 with those having no income being the majority and those earning 20,000 and above being the minority as illustrated in table 1

Table 1: Socio-demographic Characteristics of the respondents

Variable	Category	Frequency (N=211)	Percentage (%)
Gender	Male	197	93.4
	Female	14	6.6
Age	Mean±SD; Range	30.8±9.8	18-70
Age	18-30 Years	128	60.7
	31-40 Years	52	24.6
	41 and Above Years	31	14.7
Religion	Christian	188	89.1
	Muslim	19	9.0
	Other	4	1.9
Education level	Primary and Below	42	19.9
	Secondary	84	39.8
	College	47	22.3
	University	38	18.0
Occupation	Farmer	17	8.1
	Trader/Business	45	21.3
	Casual Laborer	66	31.3
	Professional	19	9.0
	Student	28	13.3
	Other	36	17.1
Marital status	Never Married	159	75.4
	Married	31	14.7
	Separated/ Divorced/Widowed	21	10.0
Income	Mean±SD; Range	16715.6±69430.5	0-1,000,000
Income	No Income	52	24.6
	5000 and Below	36	17.1
	50,001-10,000	44	20.9
	10,001-20,000	50	23.7
	20,000 and Above	29	13.7

4.2 Prevalence of suicidality

Reasons for living or dying, active and passive suicide attempts had the highest endorsements while reason for attempt had the lowest endorsement on the BSS screen. In terms of screening items only majority >90% had low desire of harming/ killing themselves.

Table 2: Item properties for both the BSSI-Screen and entire BSSI and proportion of endorsed items

Item	N	Mean	SD	Proportion of Endorsed items		
				0	1	2
1 Wish to live	211	0.08	0.32	197(93.4%)	11(5.2%)	3(1.4%)
2 Wish to die	211	0.09	0.34	197(93.4%)	10(4.7%)	4(1.9%)
3 Reasons for living or dying	211	0.07	0.31	199(94.3%)	9(4.3%)	3(1.4%)
4 Active suicide attempt	211	0.07	0.29	199(94.3%)	10(4.7%)	2(0.9%)
5 Passive suicide attempt	211	0.08	0.35	199(94.3%)	7(3.3%)	5(2.4%)
6 Duration of suicidal thoughts	14	0.57	0.65	8(57.1%)	5(35.7%)	1(7.1%)
7 Frequency of ideation	14	0.50	0.65	3(21.4%)	7(50.0%)	4(28.6%)
8 Attitude toward ideation	14	1.07	0.73	7(50.0%)	6(42.9%)	1(7.1%)
9 Control over suicidal action	14	0.79	0.58	4(28.6%)	9(64.3%)	1(7.1%)
10 Deterrents to attempt	14	0.79	0.70	5(35.7%)	7(50.0%)	2(14.3%)
11 Reasons for attempt	14	1.21	0.58	1(7.1%)	9(64.3%)	4(28.6%)
12 Specificity of planning	14	0.71	0.73	6(42.9%)	6(42.9%)	2(14.3%)
13 Availability or opportunity	14	0.29	0.47	10(71.4%)	4(28.6%)	0(0.0%)
14 Capability to carry out attempt	14	0.93	0.62	3(21.4%)	9(64.3%)	2(14.3%)
15 Expectancy of actual attempt	14	0.50	0.52	7(50.0%)	7(50.0%)	0(0.0%)
16 Extent of actual preparation	14	0.07	0.27	13(92.9%)	1(7.1%)	0(0.0%)
17 Suicide note	14	0.07	0.27	13(92.9%)	1(7.1%)	0(0.0%)
18 Final acts	14	0.29	0.61	11(78.6%)	2(14.3%)	1(7.1%)
19 Deception and concealment	14	0.57	0.76	8(57.1%)	4(28.6%)	2(14.3%)
Total score	-	0.94	3.76	-	-	-

Table 3: Prevalence of Suicidal Ideation and Lifetime suicide attempts.

14 participants (6.6%) screened positive for current suicidal ideation while 53 participants (25.1%) reported lifetime suicide attempts.

Measure	Frequency (N=211)	Percentage (%)	95% C.I.	
			Lower	Upper
Active Suicide Ideation	14	6.6	3.3	10.0
Suicide Attempts	53	25.1	19.0	30.8

Figure 1: Prevalence of active suicidal ideation

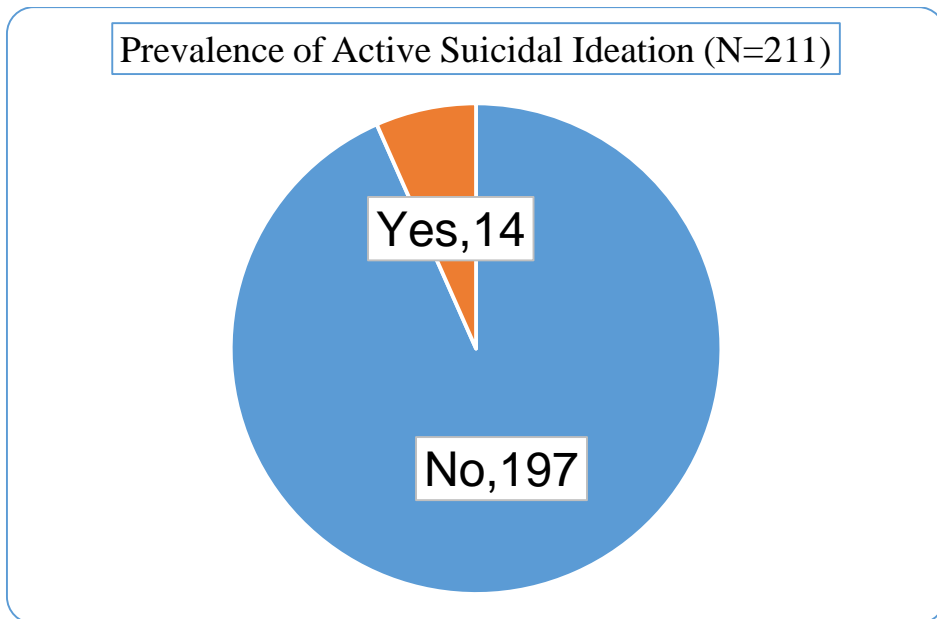
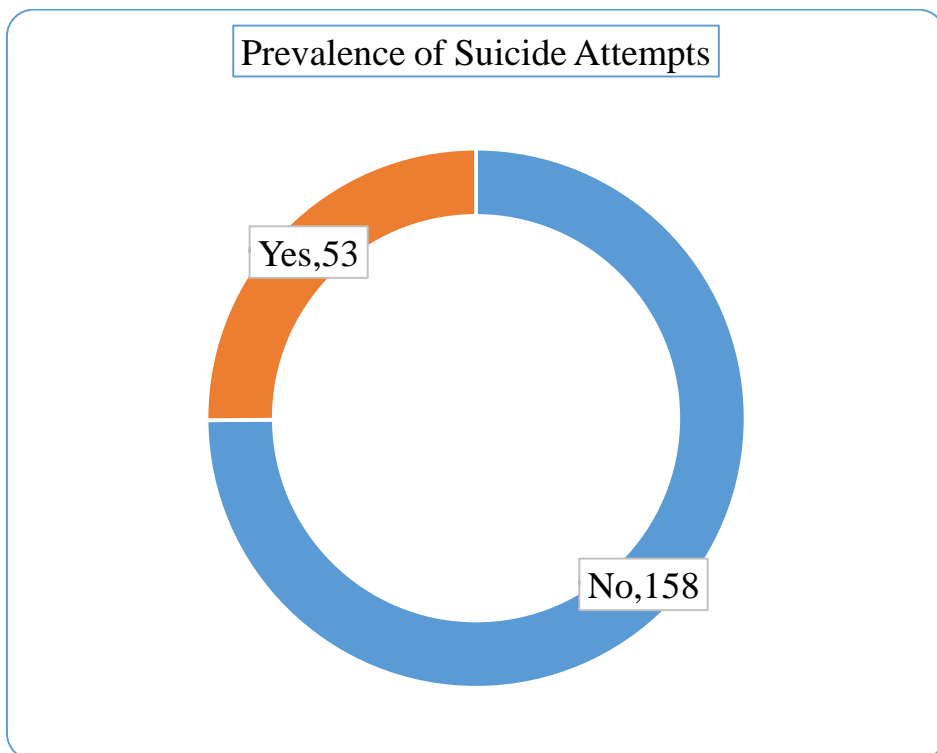


Figure 2: Prevalence of lifetime suicide attempts



4.3 Prevalence of Substance/ drug abuse and use risk level

Alcoholic beverages were highly prevalent among the respondents on lifetime use, followed by cannabis, tobacco products and amphetamine type stimulants. Others were least prevalent among the respondents on lifetime use. Alcoholic beverages had the highest prevalence on the high use risk level followed by cannabis. Sedatives had the highest prevalence on the low use risk level compared to other drugs/substances. Tobacco products had the highest prevalence on the moderate use risk level compared to other drugs/substances while sedatives and others had the lowest prevalence as illustrated in figures 3 and 4 below.

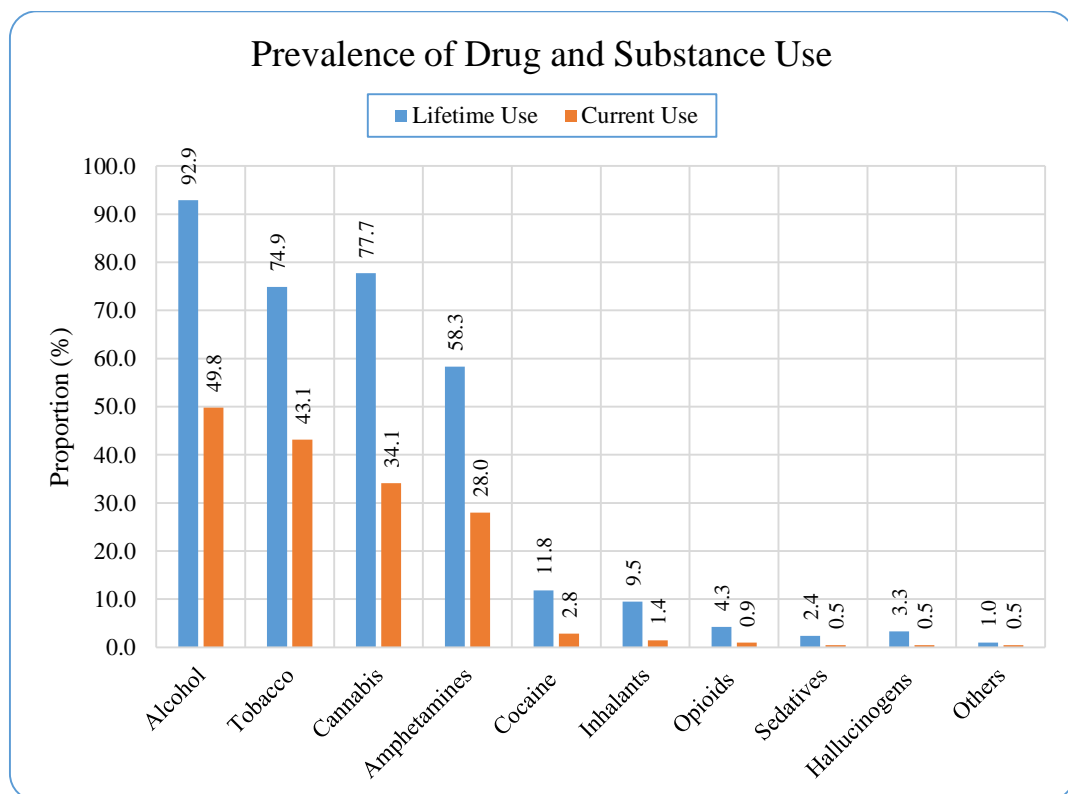


Figure 3: Prevalence of drug/ substance use lifetime and current

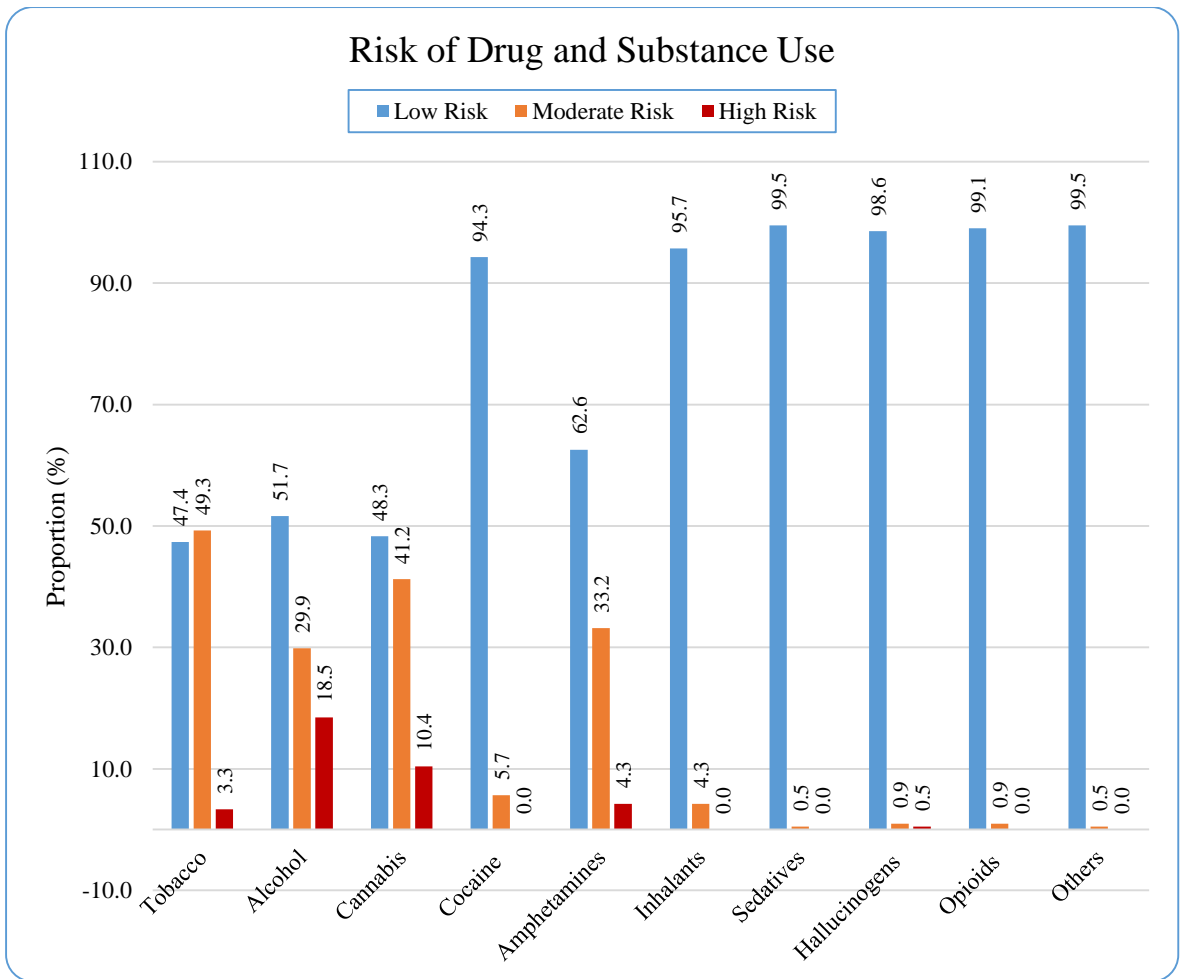


Figure 4: Prevalence of risky drug/ substance use

4.4 Socio-demographic factors associated with suicide ideation.

Suicide attempts were significantly associated with suicide ideation whereas no significant association existed between socio-demographic factors and suicide ideation.as shown in table 5 below.

Table 5: Socio-demographic factors associated with suicide ideation

Variable	Category	Suicide Ideation		χ^2	d.f.	P-value
		No	Yes			
Sex	Male	184(93.4%)	13(6.6%)	0.01	1	0.937
	Female	13(92.9%)	1(7.1%)			
Age in years	Mean±SD	30.8±9.9	32±9.4	-0.46	209	0.648
Age	18-30 Years	119(93.0%)	9(7.0%)	0.10	2	0.953
	31-40 Years	49(94.2%)	3(5.8%)			
	41 and Above Years	29(93.5%)	2(6.5%)			
Religion	Christian	175(93.1%)	13(6.9%)	0.37	2	0.833
	Muslim	18(94.7%)	1(5.3%)			
	Other	4(100.0%)	0(0.0%)			
Education level	Primary and Below	40(95.2%)	2(4.8%)	3.66	3	0.301
	Secondary	81(96.4%)	3(3.6%)			
	College	42(89.4%)	5(10.6%)			
	University	34(89.5%)	4(10.5%)			
Occupation	Farmer	17(100.0%)	0(0.0%)	4.72	5	0.451
	Trader/Business	43(95.6%)	2(4.4%)			
	Casual Laborer	62(93.9%)	4(6.1%)			
	Professional	18(94.7%)	1(5.3%)			
	Student	26(92.9%)	2(7.1%)			
	Other	31(86.1%)	5(13.9%)			
Marital Status	Never Married	147(92.5%)	12(7.5%)	2.70	2	0.259
	Married	31(100.0%)	0(0.0%)			
	Separated/ Divorced/Widowed	19(90.5%)	2(9.5%)			
Income	No Income	45(86.5%)	7(13.5%)	5.33	4	0.256
	5000 and Below	34(94.4%)	2(5.6%)			
	50,001-10,000	42(95.5%)	2(4.5%)			
	10,001-20,000	48(96.0%)	2(4.0%)			
	20,000 and Above	28(96.6%)	1(3.4%)			
Suicide Attempts	No	153(96.8%)	5(3.2%)	12.23	1	<0.001
	Yes	44(83.0%)	9(17.0%)			

4.5 Association between suicide ideations and SUD

4.5.1 Association between suicide ideation and current drug/Substance use

There was no significant association between current drug/Substance use and suicide ideation.

Table 6: Association between suicide ideation and current drug/Substance use

Drug/Substance	Use	Suicide Ideation		χ^2	d.f.	P-value
		No	Yes			
Tobacco	No	112(93.3%)	8(6.7%)	0.00	1	0.983
	Yes	85(93.4%)	6(6.6%)			
Alcohol	No	97(91.5%)	9(8.5%)	1.18	1	0.277
	Yes	100(95.2%)	5(4.8%)			
Cannabis	No	130(93.5%)	9(6.5%)	0.02	1	0.897
	Yes	67(93.1%)	5(6.9%)			
Cocaine	No	192(93.7%)	13(6.3%)	1.00	1	0.317
	Yes	5(83.3%)	1(16.7%)			
Amphetamines	No	141(92.8%)	11(7.2%)	0.32	1	0.573
	Yes	56(94.9%)	3(5.1%)			
Inhalants	No	194(93.3%)	14(6.7%)	0.22	1	0.642
	Yes	3(100.0%)	0(0.0%)			
Sedatives	No	196(93.3%)	14(6.7%)	0.07	1	0.789
	Yes	1(100.0%)	0(0.0%)			
Hallucinogens	No	196(93.3%)	14(6.7%)	0.07	1	0.789
	Yes	1(100.0%)	0(0.0%)			
Opioids	No	195(93.3%)	14(6.7%)	0.14	1	0.705
	Yes	2(100.0%)	0(0.0%)			
Others	No	196(93.3%)	14(6.7%)	0.07	1	0.789
	Yes	1(100.0%)	0(0.0%)			

4.5.2 Association between suicide ideation and Risky Drug/Substance use

There was significant association between moderate risk cocaine use and suicide ideation. Where participants who were using cocaine at moderate risk level had a greater proportion of those with suicidal ideation (33.3%) as compared to those who don't use or use it a low risk (3.3%) $P < 0.001$. No significant association between other drugs/substance use and suicide ideation.

Table 7: Association between suicide ideation and Risky Drug/Substance use

Drug/Substance	Risk	Suicide Ideation		χ^2	d.f.	P-value
		No	Yes			
Tobacco	Low/ No Risk	93(93.0%)	7(7.0%)	0.81	2	0.667
	Moderate Risk	98(94.2%)	6(5.8%)			
	High Risk	6(85.7%)	1(14.3%)			
Alcohol	Low/ No Risk	100(91.7%)	9(8.3%)	1.75	2	0.417
	Moderate Risk	61(96.8%)	2(3.2%)			
	High Risk	36(92.3%)	3(7.7%)			
Cannabis	Low/ No Risk	99(97.1%)	3(2.9%)	4.39	2	0.111
	Moderate Risk	78(89.7%)	9(10.3%)			
	High Risk	20(90.9%)	2(9.1%)			
Cocaine	Low/ No Risk	189(95.0%)	10(5.0%)	14.64	1	<0.001
	Moderate Risk	8(66.7%)	4(33.3%)			
	High Risk	0(0.0%)	0(0.0%)			
Amphetamines	Low/ No Risk	122(92.4%)	10(7.6%)	1.10	2	0.576
	Moderate Risk	67(95.7%)	3(4.3%)			
	High Risk	8(88.9%)	1(11.1%)			
Inhalants	Low/ No Risk	189(93.6%)	13(6.4%)	0.30	1	0.581
	Moderate Risk	8(88.9%)	1(11.1%)			
	High Risk	0(0.0%)	0(0.0%)			
Sedatives	Low/ No Risk	196(93.3%)	14(6.7%)	0.07	1	0.789
	Moderate Risk	1(100.0%)	0(0.0%)			
	High Risk	0(0.0%)	0(0.0%)			
Hallucinogens	Low/ No Risk	194(93.3%)	14(6.7%)	0.22	2	0.898
	Moderate Risk	2(100.0%)	0(0.0%)			
	High Risk	1(100.0%)	0(0.0%)			
Opioids	Low/ No Risk	195(93.3%)	14(6.7%)	0.14	1	0.705
	Moderate Risk	2(100.0%)	0(0.0%)			
	High Risk	0(0.0%)	0(0.0%)			
Others	Low/ No Risk	196(93.3%)	14(6.7%)	0.07	1	0.789
	Moderate Risk	0(0.0%)	0(0.0%)			
	High Risk	1(100.0%)	0(0.0%)			

4.5.3 Association between suicide ideation and Risky Drug/Substance use.

Risky cannabis and cocaine use are significantly associated with suicide ideation whereas the other drugs/substance risky use are not significantly associated with suicide ideation.

Table 8: Association between suicide ideation and Risky Drug/Substance use

Drug/Substance	Risky Use	Suicide Ideation		χ^2	d.f.	P-value
		No	Yes			
Tobacco	No	93(93.0%)	7(7.0%)	0.04	1	0.840
	Yes	104(93.7%)	7(6.3%)			
Alcohol	No	100(91.7%)	9(8.3%)	0.96	1	0.328
	Yes	97(95.1%)	5(4.9%)			
Cannabis	No	99(97.1%)	3(2.9%)	4.35	1	0.037
	Yes	98(89.9%)	11(10.1%)			
Cocaine	No	189(95.0%)	10(5.0%)	14.64	1	<0.001
	Yes	8(66.7%)	4(33.3%)			
Amphetamines	No	122(92.4%)	10(7.6%)	0.50	1	0.478
	Yes	75(94.9%)	4(5.1%)			
Inhalants	No	189(93.6%)	13(6.4%)	0.30	1	0.581
	Yes	8(88.9%)	1(11.1%)			
Sedatives	No	196(93.3%)	14(6.7%)	0.07	1	0.789
	Yes	1(100.0%)	0(0.0%)			
Hallucinogens	No	194(93.3%)	14(6.7%)	0.22	1	0.642
	Yes	3(100.0%)	0(0.0%)			
Opioids	No	195(93.3%)	14(6.7%)	0.14	1	0.705
	Yes	2(100.0%)	0(0.0%)			
Others	No	196(93.3%)	14(6.7%)	0.07	1	0.789
	Yes	1(100.0%)	0(0.0%)			

4.6 Comorbidity

Of the 211 respondents, 21 had comorbid depression, 17 had bipolar mood disorder and 8 had schizophrenia as shown below.

Table 9 Comorbidity among the Respondents

Measure	Category	Frequency (N=211)	Percentage (%)	95% C.I.	
				Lower	Upper
Comorbidity	None	165	78.2	72.5	83.9
	Depression	21	10.0	5.7	14.2
	BMD	17	8.1	4.3	11.8
	Schizophrenia	8	3.8	1.4	6.6
Comorbidity	No	165	78.2	72.5	83.9
	Yes	46	21.8	16.1	27.5

4.6.1 Comorbidity Vs Suicidal ideation

There was no significant association between comorbidity and suicide ideation as illustrated in the table below.

Table 10 Comorbidity Vs Suicidal ideation

Variable	Category	Active Suicide Ideation		P-value†
		No	Yes	
Comorbidity	None	154(93.3%)	11(6.7%)	0.294
	Depression	21(100.0%)	0(0.0%)	
	BMD	15(88.2%)	2(11.8%)	
	Schizophrenia	7(87.5%)	1(12.5%)	
Comorbidity	None	154(93.3%)	11(6.7%)	1.000
	Present	43(93.5%)	3(6.5%)	

4.7 Independent predictors of suicidal ideation

Participants who were using cocaine at risky levels were about 9 times more likely to have suicidal ideation (A.O.R.=9.38, 95% C.I. 1.88-46.73) as compared to those who do not use cocaine/ use at low risk levels. Respondents who had previously attempted suicide were about 8 times more likely to have suicidal ideation (A.O.R.=7.73, 95% C.I. 2.19-27.20) as compared to those who had never attempted suicide. No significant association was observed between risky cannabis use and suicidal ideation.

Table 11: Independent predictors of suicidal ideation

Parameter	Category	A.O.R.	95% C.I. A.O.R.		Sig.
			Lower	Upper	
Risky Cannabis use	No	Ref.			0.159
	Yes	2.73	0.67	11.05	
Risky Cocaine use	No	Ref.			0.006
	Yes	9.38	1.88	46.73	
Suicide Attempts	No	Ref.			0.001
	Yes	7.73	2.19	27.20	

Note: A.O.R.-Adjusted Odds Ratio; C.I.-Confidence interval; Ref.-Reference Category

CHAPTER FIVE

DISCUSSION

The social demographic characteristics of the participant indicated that majority were in the ages of 18-30, had no formal employment therefore a low income and they were never married with a few who had been divorced separated or widowed. This is expected as most of the patients who commonly use substances are within this age group and many of them from low socioeconomic status are likely to seek services from a public mental health facility, which is affordable, with most services free, or covered by the public insurer.

This study sought to find the prevalence of suicidality among persons who use substances. The study found a lifetime prevalence of suicidality at 25% (95% C.I. 19.0-30.8) with 6.6% (95% C.I. 3.3-10.0) of the participants having active suicidal ideation. This is slightly higher prevalence compared to a study conducted in Uganda that found a prevalence of 13.3 % (Swahn, Palmier, Kasirye, & Yao, 2012) but compares with a study by Ojuade and Munene (2018) which notes that suicide ideation in Kenya among females aged 18-21 is approximately 27.9%. This is also significantly higher compared to prevalence of suicidal ideation and attempts in the general population. A study by Jenkins and Othieno (2015) indicated the lifetime suicidal ideation in the general population to be 7.9%, a study by L.Ongeri (2017) showed the prevalence of suicidality to be 20%. Other studies have found similar findings (Guilherme Borges et.al, 2010, Solomon meseret et.al 2015 at 18.4 % and 16.2%) respectively. Thus this indicates clearly that suicidality is more prevalent among persons with substance use disorders compared to the general population.

The study further found that reasons for living or dying, active and passive suicide attempts were more common among the participants while the reason for attempt was least common. Additionally, above 90% of the respondents had a low desire of harming or killing themselves. Available research has found that there is an association between alcohol and substance use and suicide ideation (Berlin, Hakes, Hu, & Covey, 2015; Esang & Ahmed, 2018). However, the number of substances used is also an important predictor of suicide ideation. In a study in Brazil, there was a prevalence of 40% for crack- cocaine users while the prevalence is about 21% for cocaine users only (Borges, Walters, & Kessler, 2000; Miguel, Brietzke, Caetano, Abdalla, & Madruga, 2019; Roglio et al., 2020).

Alcohol and cannabis respectively had the highest risk of use while sleeping sedatives or sleeping pills had the lowest risk of use compared to other drugs. However, unlike in the study, a meta-analysis by Borges et al., 2018 shows that acute alcohol use had a greater association with suicide attempt with an Odds Ratio (OR) of 37.18 while Andrew M & Li-Tzy, (2019) found an OR of 2.0- 2.3. this was attributed to the acute effect of alcohol on the neurotransmitters and cognitive functions. This is because alcohol may trigger impulsion, aggression and dysphoria which weakens the barriers to self-harm and reduces the ability to find alternative solutions. Other studies found that the prevalence of lifetime suicide attempts for people with AUD to be 21%.

Alcohol use also contributes to 4.2% of all DALYs with a higher burden of alcohol in countries with a low socio-economic index to the Global Burden of Disease, (2016). This is evident from the study where majority of the respondents are casual laborers with an average monthly income or about Ksh. 17,000.

According to the study, suicide attempts had a significant association ($P = <0.01$) with suicide ideation. Further, there was no significant association between current drug/Substance use and suicide ideation ($P < 0.001$). Moreover, those using cocaine at risky levels had 9 times (A.O.R.=9.38, 95% C.I. 1.88-46.73) more likelihood of having suicide ideation. This was also true for users of cannabis at risky levels who had an odds ratio of 2.73. Other studies have found an OR for suicide ideation of 1.35-2.68 for cocaine and 3.89 for cannabis (Esang & Ahmed, 2018; Santis et al., 2016). Moreover, a meta-analysis by Borges, Bagge, & Orozco, (2016) found that the OR for cocaine use and suicide attempts was between 1.72- 5.94. In Brazil, there is a prevalence of about 21% of suicide ideation among people using cocaine (Roglio et al., 2020). The results of the study are in line with what other researchers have found in the past. This means that while other substances have an independent correlation with suicide ideation and attempts, cocaine presents a higher risk for suicide ideation among its users.

Respondents who had previously attempted suicide were about 8 times more likely to have suicidal ideation (A.O.R.=7.73, 95% C.I. 2.19-27.20) as compared to those who had never attempted suicide. Alcohol and drug use are also predictors of subsequent suicide attempts while previous use is not a significant predictor for people who are currently using (Borges et al., 2000). This means that it is important to focus on current substance use even if it is not necessarily associated with abuse and dependency as it is a risk factor for impulsive suicide attempts. While other studies have reported increased risk of suicidality among people with substance use and comorbid mental illnesses (Breet, Goldstone, & Bantjes, 2018; Salama et al., 2020) this study did not find a significant association between suicidal ideation and

comorbid mental illnesses. This could be explained by the fact that only a small percentage of our sample reported commodities.

Conclusion

Risk of suicide is higher among people with substance use disorders compared with the general population. The main risk factors for suicide ideation are previous suicide attempt and risky cocaine use. There is need for clinicians to routinely and continuously screen patients with substance use disorders for suicidal thoughts and behaviors throughout treatment.

Recommendations

Integration of suicide risk assessment and treatment in management of patients with substance use disorders. Early identification of suicide ideation and intervention for the same should be highlighted even more as a potential first step towards suicide prevention. This calls for collaboration between addiction and substance use specialists, family and community members in suicide prevention.

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APPENDICES

APPENDIX 1: PARTICIPANT INFORMATION AND CONSENT FORM

Title of Study: Prevalence of Suicidality among People with Substance Use Disorders at Mathari National Teaching and Referral Hospital in Nairobi County, Kenya

Investigator: Dr George Mugiira Itabari, University of Nairobi.

Introduction:

I would like to tell you about a study being conducted by **Dr George Mugiira Itabari** a Masters of medicine (Psychiatry) student at the school of Medicine, University of Nairobi. The purpose of this consent form is to give you the information you will need to help you decide whether or not to be a participant in the study. Feel free to ask any questions about the purpose of the research, what happens if you participate in the study, the possible risks and benefits, your rights as a volunteer, and anything else about the research or this form that is not clear. When we have answered all your questions to your satisfaction, you may decide to be in the study or not. This process is called 'informed consent'. Once you understand and agree to be in the study, I will request you to sign your name on this form. You should understand the general principles which apply to all participants in a medical research: i) Your decision to participate is entirely voluntary ii) You may withdraw from the study at any time without necessarily giving a reason for your withdrawal iii) Refusal to participate in the research will not affect the services you are entitled to in this health facility or other facilities. We will give you a copy of this form for your records.

May I continue? YES /NO

This study has approval by The Kenyatta National Hospital-University of Nairobi Ethics and Research Committee protocol No _____

WHAT IS THIS STUDY ABOUT

The purpose of this study is determine the prevalence of suicidality (in terms of suicidal thoughts and behaviours) among people with a history of substance use. Participants in this study will include patients who have a history of using substances. Participants will be asked questions about their socio-demographic characteristics, history of mental disorders, their use of substances (type of substance, extent and duration of use) and the presence/absence of suicidal thoughts and behaviours in the last two weeks. There will be approximately two hundred and eleven patients who will be randomly selected.

WHAT WILL HAPPEN IF YOU DECIDE TO BE IN THIS RESEARCH STUDY?

If you agree to participate in this study, the following things will happen: You will be interviewed by the investigator in a private area where you feel comfortable answering questions. The interview will last approximately 40 Minutes.

ARE THERE ANY RISKS, HARMS DISCOMFORTS ASSOCIATED WITH THIS STUDY?

Medical research has the potential to introduce psychological, social, emotional and physical risks. One potential risk of being in the study is loss of privacy. We will keep everything you tell us as confidential as possible. We will use a code number to identify you in a password-protected computer database and will keep all of our paper records in a locked file cabinet. However, no system of protecting your confidentiality can be absolutely secure, so it is still possible that someone could find out you were in this study and could find out information about you. Also, answering questions in the interview may be uncomfortable for you. If there are any questions you do not want to answer, you can skip them. You have the right to refuse the interview or any questions asked during the interview. If by any chance we notice some psychological distress during the interview, we will stop it immediately and refer you to a psychosocial counselor based at the clinic for appropriate intervention.

We will do everything we can to ensure that this is done in private.

ARE THERE ANY BENEFITS BEING IN THIS STUDY?

There is no direct benefit to you from participating in the study. However, we hope that, in the future, other people might benefit from this study because it will allow us to learn more about the prevalence of suicidal thoughts and behaviours among people who use substances. This will inform the extent of suicidality and help in designing of appropriate interventions to reduce and avoid cases of suicide among patients who have used or are using substances.

WILL BEING IN THIS STUDY COST YOU ANYTHING?

Participating in this study will not cost you anything apart from the 40 minutes or so of your time.

WILL YOU GET REFUND FOR ANY MONEY SPENT AS PART OF THIS STUDY?

We shall not provide any monetary refund for participating in the study.

CONFIDENTIALITY AND PRIVACY

The information you provide will be treated confidentially and only authorized members of the research team will have access to it. You will be assigned a unique study ID and no names will be written on the interview forms. Your name or other personal information will not be used in any reports or shared with anyone else. We will use the information for research purposes only.

WHAT IF YOU HAVE QUESTIONS IN FUTURE?

If you have further questions or concerns about participating in this study, please call or send a text message to the principal investigator at **+254 726405134** or email at **gimitabs@yahoo.com**. For more information about your rights as a research participant you may contact the Secretary/Chairperson, Kenyatta National Hospital-

University of Nairobi Ethics and Research Committee Telephone No. **2726300 Ext. 44102** email: **uonknh_erc@uonbi.ac.ke**.

WHAT ARE YOUR OTHER CHOICES?

Your decision to participate in research is voluntary. You are free to decline participation in the study and you can withdraw from the study at any time without injustice or loss of any benefits.

CONSENT FORM (STATEMENT OF CONSENT)

Participant’s statement

I have read this consent form or had the information read to me. I have had the chance to discuss this research study with a study counselor. I have had my questions answered in a language that I understand. The risks and benefits have been explained to me. I understand that my participation in this study is voluntary and that I may choose to withdraw any time. I freely agree to participate in this research study.

I understand that all efforts will be made to keep information regarding my personal identity confidential.

_____ (Signature/ Thumb Print of Participant) _____ (Date)

_____ (Participant's name – printed)

Statement of Person Who Obtained Consent

The information in this document has been discussed with the participant or, where appropriate, with the participant’s legally authorized representative. The participant has indicated that he or she understands the risks, benefits, and procedures involved with participation in this research study.

_____ (Signature of Person who Obtained Consent) _____ (Date)

_____ (Name of Person who Obtained Consent - printed)

PARTICIPANT INFORMATION AND CONSENT FORM- SWAHILI

Title of Study: Prevalence of Suicidality among People with Substance Use Disorders at Mathari National Teaching and Referral Hospital in Nairobi County, Kenya

Investigator: Dr. George Mugiira, University of Nairobi.

DIBAJI

Ningetaka kuwaeleza kuhusu utafiti unaofanywa na Daktari George Mugiira, mwanafunzi wa shahada ya uzamili (M.Med) katika chuo kikuu cha Nairobi. Madhumuni ya fomu hii ni kukupa taarifa itakayo kusaidia kufanya uamuzi kama utakuwa au hutakuwa mshiriki katika utafiti huu. Kuwa huru kuuliza swali lolote kuhusu madhumuni ya utafiti huu, kitakachotendeka iwapo utashiriki, hatari na faida za kushiriki, haki zako kama mshiriki na lolote lile linalohusiana na utafiti huu au lolote ambalo alieleweki katika fomu hii. utakaporidhishwa na majibu yetu ndipo utafanya uamuzi kama utashiriki au la. Utaratibu huu ndio unajulikana kama 'utoaji idhini'. Utakapoelewa na kukubali kuwa mshirika katika utafiti huu utahitajika kuandika jina lako na kutia sahihi katika fomu hii. unapaswa kuelewa kanuni za jumla zinazofuatwa na washirika wote wa utafiti wa matibabu; (i) uamuzi wa kuwa mshiriki ni kwa hiari. (ii) Unaweza kujitoa kwenye tafiti wakati wowote bila kulazimika kupeana sababu yeyote ya kujitoa. (iii) Kutoshiriki katika utafiti huu hutaathiri huduma unazopewa katika kituo cha afya chochote. Tutakupa nakala ya hii fomu kama kumbukumbu yako.

Naweza endelea? NDIO LA

Utafiti huu umeruhusiwa na maadili ya Hospitali kuu ya Kenyatta ikishirikiana na chuo kikuu cha Nairobi na kamati ya utafiti itifaki nambari _____

UTAFITI HUU UNAHUSU

Mchunguzi aliyetajwa hapo awali anawahoji watu ambao wanatumia ama washawahi tumia vileo. Malengo ya mahojiano ni kujua kiwango cha mafikira ya kujitoa uhai. Baadhi ya maswali yatakayoulizwa washirika ni; tabia ya idadi katika jamii, historia ya magonjwa ya akili, vileo unavyotumia (kiasi na kwa muda gani) na tabia au mafikira yanahusiana na kujitoa uhai. kutakuwa na takriban washirika mia mbili kumi na mmoja watakaochaguliwa kwa nasibu.

KUTATOKEA NINI KAMA UTAAMUA KUSHIRIKI KATIKA UTAFITI HUU?

Kama utakubali kushiriki katika utafiti huu utahojiwa na mtaalamu kwenye chumba binafsi utakapoweza kujibu maswali faraghani. Mahojiano yatachukua muda wa dakika arobaini.

JE KUNA HATARI, MADHARA AMA USUMBUFU UNAOHUSISHWA NA UTAFITI HUU?

Utafiti wa aina hii unao uwezo wa kuanzisha hatari za saikolojia, hisia na kimwili. Mmojawapo ya hatari kuweka siri zako wasi. Habari utakayotoa kwetu tutaiweka kama siri iwezekanavyo. Tutatumia msimbo kukutambulisha katika tarakilishi iliyolindwa na nywila. Nakala za kumbukumbu zitahifadhiwa vyema kwenye droo iliyofungwa. Hata hivyo hakuna njia yeyote ya kuhifadhi iliyo bora kwa asilimia mia, kwa hivyo kuna njia mtu anaweza jua ulikuwa mshiriki katika utafiti na kuweza kupata habari uliyopeana. Pia kujibu maswali mengine inaweza kuwa si jambo la kurudhisha kwako, kama kuna swali hautaki kujibu una huru wa kulipita. unao uhuru wa kukataa kuhojiwa au kujibu swali/maswali mengine wakati wa mahojiano. Kama kutakuwa na dalili zozote za dhiki ya kpsychologia, basi tutasimamisha mahojiano na tukupeleke kwa daktari anayehusika na ushauri.

Tutafanya juu chini kuhakikisha habari yako utakayotupa haitajulikana.

JE KUNA MANUFAA YA KUSHIRIKI HUU UTAFITI?

Hakuna manufaa ya moja kwa moja kwa kuwa mshirika katika huu utafiti, hata hivyo tunatumaini kuwa habari utakayotupa itatufaidi siku za usoni kwani tutasaidika kujua kiwango cha shida ya mafikira na tabia za kijitoa uhai kwa wale wanatumia vileo ili. Matokeo yasadia katika mikakati ya kusaidia kusihua au kupunguza wezekano wa kujitoa uhai kwa watu wanaotumia vileo.

JE KUSHIRIKI HUU UTAFITI UTAKUGHARIMU?

Kushiriki katika huu utafiti hutakugharimu chochote ila tu ule muda utakaotupa kwa mahojiano.

JE KUNA FEDHA UKAYOPEWA KUSHIRIKI HUU UTAFITI?

Hakuna fedha zozote utakazopokea kushiriki huu utafiti.

SIRI:

Tutaweka habari inayokuhusu kwa siri ili kwamba hakuna mtu ataweza kukutambua. Tutatumia namba ya siri na hatutaandika majina yako kwa fomu yoyote.

JE KAMA KUNA MASWALI YATAKAYOIBUKA USONI?

Kama utakuwa na maswali zaidi au wasiwasi wowote kutokana na kuwa mshiriki katika huu utafiti unaweza wasiliana nasi kwa njia ya kupiga simu au kuandika ujumbe kwa mchunguzi kupitia nambari +254 726405134 au umwandikie barua pepe kwa ujimitabs@yahoo.com kwa habari zaidi kuhusu haki zako kama mshirika katika huu utafiti wasiliana na katibu au mwenyekiti wa kamati ya maadili ya utafiti ya hospitali kuu ya Kenyatta wakishirikiana na chuo kikuu cha Nairobi, nambari ya simu 2726300 ext 44102 au kupitia barua pepe kupitia: uonknh_erc@uonbi.ac.ke

UAMUZI

Uamuzi wa kuwa mshirika katika huu utafiti ni wa kujitolea. Una huru wa kukataa kushiriki au kujiondoa katika utafiti bila udhalimu au kupoteza dhamana yoyote.

FOMU YA RIDHAA (KAULI YA RIDHAA)

Kauli ya mshiriki.

Nimesoma hii fomu ya ridhaa/nimesomewa hii fomu ya ridhaa. Nimejadiliana na mshauri wa utafiti kuhusu huu utafiti, nimejibiwa maswali kwa lugha ninayoelewa. Nimeelezwa hatari na manufaa ya kushiriki huu utafiti, nimeelewa kuwa kushiriki huu utafiti ni kwa kujitolea na ninao uhuru wa kujiondoa wakati wowote ule. Nimekubali kwa hiari yangu kushiriki katika huu utafiti.

Nimeelewa kuwa kutafanywa juu chini kuhakikisha habari nitakayotoa au utambulisho wangu utawekea siri.

Sahihi / Alama ya Kidole ya mhusika

Tarehe

Jina la mshiriki

Kauli ya mchunguzi

Ujumbe uliopo katika hii fomu umejadiliwa na mshiriki au mwakilishi wa kisheria wa mshirika. Mshirika amekubali kuwa ameelewa hatari, manufaa na utaratibu unaohusishwa na kushiriki huu utafiti.

Sahihi ya mchunguzi

Tarehe

Jina la mchunguzi.

APPENDIX 2: DATA COLLECTION INSTRUMENTS

SOCIODEMOGRAPHIC QUESTIONNAIRE- English

STUDY ID

NO	Question	Response	Code
1	SEX (SEX)	F=1 M=2	[]
2	AGE (AGE)	Number	[]
3	County of Origin		
4	Religion (RELIG)	1. Christian 2. Muslim 3. Other (specify)	[]
5	Education level (EDULEV)	1. None 2. Primary 3. Secondary 4. College 5. University a) First degree b) Masters c) Doctorate 6. Other (specify)	[]
6	Occupation (OCCUP)	1. Farmer 2. Trader/Business 3. Casual labourer 4. Professional 5. Student 6. Other (specify)	[]
7	Marital status (MARST)	1. Never married 2. Married 3. Separated/divorced. 4. Widowed	[]
8	Average income/pocket money per month (INCM)	Amount	[]
9	Comorbid Mental illness(es)- List all applicable from the patient's file	1. 2. 3. 4. 5.	

SOCIODEMOGRAPHIC QUESTIONNAIRE

Study ID: _____

Nambari	Swali	Jibu	Code	
1	Jinsia	Mwanamke() Mwanamme()		
2	Umri (miaka)			
3	County Unayotoka			
4	Dini	Mkristo() Mhisilamu() Nyingine(Fafanua)		
5	Kiwango Cha Elimu	Hakuna() Msingi() Sekondari() Chuo() Degree ya kwanza() Uzamili() Uzamifu() Nyingine(Fafanua)		
6	Kazi	Mkulima() Mwanabiashara() Kibarua() Mtaalamu() Mwanafunzi() Nyingine(Fafanua)		
7	Umeoa/Olewa	Sijaolewa() Nimeolewa() Tumetengana() Nimetaliki() Mjane()		
8	Wastani Wa Kipato Kwa Mwezi	Kiwango		
9	Magonjwa mengine ya Kiakili (Kutoka kwa file ya mgonjwa)	1. 2. 3. 4. 5.		

BECK SCALE FOR SUICIDE IDEATION- ENGLISH

Study ID: _____

Please carefully read each group of statements below. Circle the one statement in each group that best describes how you have been feeling for the past week, Including today. Be sure to read all of the statements in each group before making a choice.

1.	0. I have a moderate/average to strong wish to live. 1. I have a weak wish to live. 2. I have no wish to live.	9.	0. I can keep (prevent) myself from committing suicide. 1. I am unsure that I can keep (prevent) myself from committing suicide. 2. I cannot keep (prevent) myself from committing suicide.
2.	0. I have no wish to die. 1. I have a weak wish to die. 2. I have a moderate to strong wish to die.	1 0.	0. I would not kill myself because of my family, friends, religion, possible injury from an unsuccessful attempt, etc. 1. I am somewhat concerned about killing myself because of my family, friends, religion, possible injury from an unsuccessful (failed) attempt, etc. 2. I am not or I am only a little concerned about killing myself because of my family, friends, religion, possible injury from an unsuccessful (failed) attempt, etc.
3.	0. My reasons for living outweigh (are more than) my reasons for dying. 1. My reasons for living or dying are about equal. 2. My reasons for dying outweigh (are more than) my reasons for living.	1 1.	0. My reasons for wanting to commit suicide are primarily (mainly) aimed at influencing other people, such as getting even (revenge) with people, making people happier, making people pay attention to me, etc. 1. My reasons for wanting to commit suicide are not only aimed at influencing other people, but also represent a way of solving my problems. 2. My reasons for wanting to commit suicide are primarily (mainly) based upon escaping (running away) from my problems.
4	0. I have no desire to kill myself. 1. I have a weak desire to kill myself. 2. I have a moderate to strong desire to kill myself.	1 2.	0. I have no clear plan about how to kill myself. 1. I have considered ways of killing myself, but have not worked out the details. 2. I have a clear plan for killing myself.
5	0. I would make a choice to live or die if I found myself in a life-threatening situation. 1. I would take a chance on life or death if I found myself in a life-threatening situation. 2. I would not take the steps necessary to avoid death if I found myself in a life-threatening situation.	1 3.	0. I do not have access to a method or a chance to kill myself. 1. The method that I would use for committing suicide takes time, and I really do not have a good chance to use this method. 2. I have access or I expect having access to the method that I would choose for killing myself and also have or shall have the chance to use it.
	If you have circled the <u>zero</u> (0) statements in both Groups 4 and 5 above, then skip down to Group 20. If you have marked a <u>1</u> or <u>2</u> in either Group 4 or 5, then open here and go to Group 6.	1 4.	0. I do not have the courage or the ability to commit suicide. 1. I am unsure that I have the courage or the ability to commit suicide. 2. I have the courage and the ability to commit suicide.
6.	0. I have short periods of thinking about killing myself which pass quickly. 1. I have periods of thinking about killing myself which last for moderate amounts of time. 2. I have long periods of thinking about killing myself.	1 5.	0. I do not expect to make a suicide attempt. 1. I am not sure that I shall make a suicide attempt. 2. I am sure that I shall make a suicide attempt.
7.	0. I rarely or only sometimes think about killing myself. 1. I have frequent thoughts about killing myself, 2. I continuously think about killing myself.	1 6.	0. I have made no preparations for committing suicide. 1. I have made some preparations for committing suicide. 2. I have almost finished or completed my preparations for committing suicide.
8.	0. I do not accept the idea of killing myself. 1. I neither accept nor reject the idea of killing myself. 2. I accept the idea of killing myself.	1 7.	0. I have not written a suicide note. 1. I have thought about writing a suicide note or have started to write one, but have not completed it. 2. I have completed a suicide note:
	0. I have made no arrangements for what will		

18	<p>happen after I have committed suicide.</p> <ol style="list-style-type: none"> 1. I have thought about making some arrangements for what will happen after I have committed suicide. 2. I have made clear arrangements for what will happen after I have committed suicide. 	<p>2 0.</p>	<p>0. I have never attempted suicide. 1. I have attempted suicide once. 2. I have attempted suicide two or more times.</p> <p>If you have previously <u>attempted suicide</u>, please continue with the next statement group.</p>
19	<ol style="list-style-type: none"> 0. I have not hidden my desire to kill myself from people. 1. I have delayed back telling people about wanting to kill myself. 2. I have attempted to hide, conceal, or lie about wanting to commit suicide. 	<p>2 1. 2 2. 2. 3.</p>	<p>0. My wish to die during the last suicide attempt was low. 1. My wish to die during the last suicide attempt was moderate. 2. My wish to die during the last suicide attempt was high.</p> <p>The method I tried to use was? _____ I have attempted _____ number of time</p>

KIPIMO CHA KUJIUA CHA BECK

Assessment:

Tafadhali soma kwa makini kila kundi la maelezo yaliyo hapa chini. Viringisha kauli katika kila kundi ambayo inafafanua namna ambavyo umekuwa ukihisi katika wiki iliyopita pamoja na leo. Hakikisha kuwa umesoma kauli zote katika kila kundi kabla ya kufanya uamuzi.

1.	0. Nina nia kadiri ama dhabiti ya kuishi. 1. Nina nia dhaifu ya kuishi. 2. Sina nia ya kuishi.	9.	0. Ninaweza kujizuia kufanya tendo la kujiua. 1. Sina uhakika kuwa ninaweza kujizuia kufanya tendo la kujiua. 2. Siwezi kujizuia kufanya tendo la kujiua.
2.	0. Sina nia ya kufa. 1. Nina nia dhaifu ya kufa. 2. Nina nia kadiri ama dhabiti ya kuishi.	10.	0. Sitajiuwa kwa sababu ya familia yangu, marafiki, dini, uwezekano wa jeraha linalotokana na jaribio lisilofanikiwa n.k. 1. Nitahangaika kidogo kuhusu kujiua kwa sababu ya familia yangu, marafiki, dini, jeraha linalotokana na jaribio lisilofanikiwa n.k. 2. Sitahangaika hata kidogo kuhusu kujiua kwa sababu ya familia yangu, marafiki, dini, jeraha linalotokana na jaribio lisilofanikiwa n.k.
3.	0. Sababu zangu za kuishi zina uzito kuliko za kufa. 1. Sababu zangu za kuishi au kufa karibu ni sawa. 2. Sababu zangu za kufa zina uzito kuliko za kuishi.	11.	0. Sababu zangu za kutaka kujiua zinalenga kuathiri wengine kama, kuwa sawa na watu, kuwafanya watu kuwa na furaha, kuwafanya watu wanihudumie n.k. 1. Sababu zangu za kutaka kujiua hazilengi kuathiri wengine pekee, lakini pia kuleta njia nyingine ya kusuluhisha matatizo yangu. 2. Sababu zangu za kutaka kujiua zina msingi wake juu ya kuyaepuka matatizo yangu.
4.	0. Sina haja ya kujiua. 1. Nina haja dhaifu ya kujiua. 2. Nina haja ya kadiri ama dhabiti ya kujiua.	12.	0. Sina mpango maalum kuhusu namna ya kujiua. 1. Nimefikiria njia za kujiua lakini sijatekeleza kila kitu. 2. Nina mpango maalum wa kujiua.
5.	0. Ninaeza amua nife au niwe hai iwapo nitajipata katika hali ya kutisha maisha. 1. Nitachukua hatua kuhusu maisha au kifo iwapo nitajipata katika hali ya kutisha maisha. 2. Sitachukua hatua zinazohitajika kuepuka kifo iwapo nitajipata katika hali ya kutisha maisha.	13.	0. Sijapata njia, mbinu au nafasi ya kujiua. 1. Mbinu nitakayotumia kujiua inachukua muda, na sina nafasi nzuri ya kutumia mbinu hii. 2. Nimefikia au ninatamania kufikia mbinu ambayo nitachagua kujiua na ninayo au nitakuwa na nafasi ya kuitumia.
	Iwapo umezingira kauli ya <u>sufuri</u> (0) katika makundi yoye 4 na 5 hapo juu, ruka hadi kundi la 20. Iwapo umeviringisha <u>1 au 2</u> katika ama kundi 4 au 5, basi fungua hapa na uelekee kundi 6.	14.	0. Sina ujasiri au uwezo wa kujiua. 1. Sina uhakika kama nina ujasiri au uwezo wa kujiua. 2. Ninao ujasiri na uwezo wa kujiua.
6.	0. Nina vipindi vifupi vinavyopita haraka kufikiria kuhusu kujiua. 1. Nina vipindi vifupi vinavyodumu kwa muda wa kadiri kuhusu kujiua. 2. Nina vipindi virefu vya kufikiria kuhusu kujiua.	15.	0. Sitarajii kufanya jaribio la kujiua. 1. Sina uhakika kuwa nitafanya jaribio la kujiua. 2. Nina uhakika kuwa nitafanya jaribio la kujiua.
7.	0. Nimewaza mara chache au mara moja moja kuhusu kujiua. 1. Nimewaza mara kwa mara kuhusu kujiua. 2. Nina mfululizo wa mawazo kuhusu kujiua.	16.	0. Sina maandalizi ya kujiua. 1. Nimefanya maandalizi ya kujiua. 2. Ninakaribia sana kumaliza au nimekamilisha maandalizi yangu ya kujiua.
8.	0. Sikubali wazo la kujiua. 1. Sikubali wala sikani wazo la kujiua. 2. Nakubali wazo la kujiua.	17.	0. Sijaandika barua ya kujiua. 1. Nimefikiria kuhusu kuandika barua ya kujiua au nimeanza kuandika moja, lakini sijaimaliza. 2. Nimealiza barua ya kujiua..
18.	0. Sijaficha haja yangu ya kujiua. 1. Nimechelea kuwaeleza watu kuhusu kutaka kujiua. 2. Nimejaribu kuficha au kusema uwongo kuhusu kutaka kujiua.	20.	0. Sijawahi jaribu kujiua. 1. Nimewahi jaribu kujiua. 2. Nimewahi jaribu kujiua mara mbili au zaidi. (Kama umewahi kujaribu kujiua, tafadhali endelea kujibu maswali yafuatayo.)

19.	3. Sijawahi jaribu kujiua. 4. Nimewahi jaribu kujiua. 5. Nimewahi jaribu kujiua mara mbili au zaidi. (Kama umewahi kujaribu kujiua, tafadhali endelea kujibu maswali yafuatayo.)	21.	0. Matumaini yangu ya kufa wakati wa jaribio lililopita la kujiua yalikuwa dhaifu. 1. Matumaini yangu ya kufa wakati wa jaribio lililopita la kujiua yalikuwa ya kadiri. 2. Matumaini yangu ya kufa wakati wa jaribio lililopita la kujiua yalikuwa juu.
		22.	Mbinu ambayo nimejaribu kutumia ilikuwa
		23.	Nimejaribu marakujiua.

THE ALCOHOL, SMOKING AND SUBSTANCE INVOLVEMENT SCREENING AND TEST (ASSIST)- ENGLISH AND SWAHILI

FOR INTERVIEWER ONLY–INTERPRETATION OF RESPONSES

For Questions 2-5

Never-not used in the last three months (*Sijatumia*)

Once or twice-1 to 2 times in the last three months (*mara 1 au 2 kwa miezi mitatu*)

Monthly-average of 1-3 times per month for the last three months (*mara 1 au 3 kila mwezi kwa miezi mitatu iliyopita*)

Weekly-1 to 4 times per week (*mara 1 to 4 kila wiki*)

Daily or almost daily- 5 to 7 times per week (*mara 5 to 7 kila wiki*)

Questions 6 to 8

0-No, never (*Sijawahi*)

3- Yes but not in the last 3 months (*Ndio lakini sio kwa miezi 3 iliyopita*)

6- Yes in the last three months (*Ndio, kwa miezi 3 iliyopita*)

1.	In your life, which of the following substances have you <u>ever used</u>? (Non-medical use only) <i>Katika maisha yako, ni gani katika madawa haya ya kulevya ambayo <u>umeshawahi kutumia</u>? (Siyo yaliyoapanwa na daktari)</i>		
a.	Tobacco products (cigarettes, chewing tobacco, cigars, etc. <i>Bidhaa za tumbako (Sigara, fegi, tumbako, mbaki, etc)</i>	NO (La)	YES (Ndiyo)
b.	Alcoholic beverages (beer, wine, spirits etc) <i>Bidhaa za pombe, mvinyo, changaa, busaa, muratina, kaluvu etc.)</i>	NO (La)	YES (Ndiyo)
c.	Cannabis (marijuana, grass, pot, hash, hashoil) <i>bhangi, ngwai, hashishi, boza, etc)</i>	NO (La)	YES (Ndiyo)
d.	Cocaine (coke, crack, dragon, brown sugar etc) <i>Cocaini, unga, mchele, etc.)</i>	NO (La)	YES (Ndiyo)
e.	Amphetamine type stimulants (uppers, pep pills, bennie, speed, ecstasy, etc) <i>Bidhaa za kijusisimua (Miraa, khat, kangeta, mugoka, giza, majani, veve.etc)</i>	NO (La)	YES (Ndiyo)
f.	Inhalants (nitrous, glue, petrol, paint thinner,etc) <i>Madawa ya kuvuta ndani, petroli, gluu, petrol ya ndege, etc.)</i>	NO (La)	YES (Ndiyo)
g.	Sedatives or Sleeping Pills (Valium/roche, Serepax, Rohypnol, Mandrax, etc) <i>Madawa ya kulala au kuleta usingizi, etc.)</i>	NO (La)	YES (Ndiyo)
h.	Hallucinogens (LSD, mushrooms, PCP, Special K, etc.) <i>Madawa ya kulevya ya hallucinogeni</i>	NO (La)	YES (Ndiyo)
i.	Opioids (heroin, morphine, methadone, codeine,etc) (<i>Heroini, morphine, methadoni, unga, etc.)</i>	NO (La)	YES (Ndiyo)
j.	Other – specify:- <i>Madawa mengineyo ya kulevya, eleza:-</i>	NO (La)	YES (Ndiyo)

If "No" to all items, stop interview.

(Kama hajawahi kutumia madawa haya ya kulevya basi usiendeleo kuuliza maswali.)

IF "YES" TO ANY OF THESE ITEMS, ASK QUESTION 2 FOR EACH SUBSTANCE EVER USED. SKIP THOSE WHICH HAVE NEVER BEEN USED

(Kama ameshawahi kutumia madawa haya basi uliza swali la pili kuhusu madawa yaliyotumika peke yake)

2.	In the past three months, how often have you used the substances you mentioned? (FIRST DRUG, SECOND DRUG, ETC) <i>Kwa muda wa miezi mitatu iliyopita, ni mara ngapi ambayo umetumia madawa uliyotaja hapo nyuma? (DAWA YA KULEVYA YA KWANZA, DAWA YA KULEVYA YA PILI, NK)</i>	Never (Sijawahi)	1 or 2 for 3 months (Mara 1 au 2 kwa miezi tatu)	Monthly (1-3x/mth) (Kila Mwei)	Weekly (1-4 x/wk) (Kila wiki)	Daily or almost
a.	Tobacco products (cigarettes, chewing tobacco, cigars, etc.) <i>Bidhaa za tumbako (Sigara, fegi, tumbako, mbaki, etc)</i>	0	2	3	4	6
b.	Alcoholic beverages (beer, wine, spirits etc) <i>Bidhaa za pombe, mvinyo, changaa, busaa, muratina, kaluvu etc.)</i>	0	2	3	4	6
c.	Cannabis (marijuana, grass, pot, hash, hashoil) <i>bhangi, ngwai, hashishi, boza, etc)</i>	0	2	3	4	6
d.	Cocaine (coke, crack, dragon, brown sugar etc) <i>Cocaini, unga, mchele, etc.)</i>	0	2	3	4	6
e.	Khat and amphetamine type stimulants (uppers, pep pills, bennie, speed, ecstasy, etc) <i>Miraa, khat, kangeta, mugoka, giza, majani, veve na madawa ya kijusisimua etc</i>	0	2	3	4	6
f.	Inhalants (nitrous, glue, petrol, paint thinner, etc) <i>Madawa ya kuvuta ndani, petroli, gluu, petrol ya ndege, etc.)</i>	0	2	3	4	6
g.	Sedatives or Sleeping Pills (Valium/roche, Serepax, Rohypnol, Mandrax, etc) <i>Madawa ya kulala au kuleta usingizi, etc.)</i>	0	2	3	4	6
h.	Hallucinogens (LSD, mushrooms, PCP, Special K, etc.) <i>Madawa ya kulevya ya hallucinogeni</i>	0	2	3	4	6
i.	Opioids (heroin, morphine, methadone, codeine, etc) <i>(Heroini, morphine, methadoni, unga, etc.)</i>	0	2	3	4	6
j.	Other – specify:- <i>Madawa mengineyo ya kulevya, eleza:-</i>	0	2	3	4	6

"Never" to all items in Question 2, skip to Question 6. If any substances in Question 2 were used in the previous three months, continue with Questions 3, 4 & 5.

Ikiwa hujawahi kutumia madawa haya katika swali la pili, basi nenda moja kwa moja hadi swali la sita. Kama umeshawahi kutumia madawa ya kulevya katika swali la pili kwa muda wa miezi mitatu basi endelea na swali la 3, 4, & 5.

3.	During the past three months, how often have you had a strong desire or urge to use (FIRST DRUG, SECOND DRUG, ETC)? <i>Kwa muda wa miezi mitatu, ni mara ngapi ambapo umekuwa na hamu kubwa sana ya kutumia (DAWA YA KULEVYA YA KWANZA, DAWA YA KULEVYA YA PILI, NK)?</i>	Never (Sijawahi)	1 or 2 for 3 months (Mara 1 au 2 kwa miezi tatu)	Monthly (1-3x/mth) (Kila Mwei)	Weekly (1-4 x/wk) (Kila wiki)	Daily or almost daily (5-7x/week) (Karibu kila siku)
a.	Tobacco products (cigarettes, chewing tobacco, cigars, etc. <i>Bidhaa za tumbako (Sigara, fegi, tumbako, mbaki, etc)</i>)	0	3	4	5	6
b.	Alcoholic beverages (beer, wine, spirits etc) <i>Bidhaa za pombe, mvinyo, changaa, busaa, muratina, kaluvu etc.)</i>	0	3	4	5	6
c.	Cannabis (marijuana, grass, pot, hash, hashoil) <i>bhangi, ngwai, hashishi, boza, etc)</i>	0	3	4	5	6
d.	Cocaine (coke, crack, dragon, brown sugar etc) <i>Cocaini, unga, mchele, etc.)</i>	0	3	4	5	6
e.	Khat and amphetamine type stimulants (uppers, pep pills, bennie, speed, ecstasy, etc) <i>Miraa, khat, kangeta, mugoka, giza, majani, veve na madawa ya kijusisimua etc</i>	0	3	4	5	6
f.	Inhalants (nitrous, glue, petrol, paint thinner, etc) <i>Madawa ya kuvuta ndani, petroli, gluu, petrol ya ndege, etc.)</i>	0	3	4	5	6
g.	Sedatives or Sleeping Pills (Valium/roche, Serepax, Rohypnol, Mandrax, etc) <i>Madawa ya kulala au kuleta usingizi, etc.)</i>	0	3	4	5	6
h.	Hallucinogens (LSD, mushrooms, PCP, Special K, etc.) <i>Madawa ya kulevya ya hallucinogeni</i>	0	3	4	5	6
i.	Opioids (heroin, morphine, methadone, codeine, etc) (<i>Heroini, morphine, methadoni, unga, etc.)</i>	0	3	4	5	6
j.	Other – specify:- <i>Madawa mengineyo ya kulevya, eleza:-</i>	0	3	4	5	6

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? <i>Kwa muda wa miezi mitatu, ni mara ngapi ambavyo matumizi ya (DAWA YA KULEVYA YA KWANZA, DAWA YA KULEVYA YA PILI, NK) imeweza kukuletea shida kuhusu afya yako, uhusiano wako na watu, hali ya kuvunja sheria na hali yako ya kifedha?</i>	Never (Sijawahi)	1 or 2 for 3 months (Mara 1 au 2 kwa miezi)	Monthly (1-3x/mth) (Kila Mwei)	Weekly (1-4 x/wk) (Kila wiki)	Daily or almost daily (5-7x/week) (Karibu kila siku)
a.	Tobacco products (cigarettes, chewing tobacco, cigars, etc. <i>Bidhaa za tumbako (Sigara, fegi, tumbako, mbaki, etc)</i>)	0	4	5	6	7
b.	Alcoholic beverages (beer, wine, spirits etc) <i>Bidhaa za pombe, mvinyo, changaa, busaa, muratina, kaluvu etc.)</i>	0	4	5	6	7
c.	Cannabis (marijuana, grass, pot, hash, hashoil) <i>bhangi, ngwai, hashishi, boza, etc)</i>	0	4	5	6	7
d.	Cocaine (coke, crack, dragon, brown sugar etc) <i>Cocaini, unga, mchele, etc.)</i>	0	4	5	6	7
e.	Khat and amphetamine type stimulants (uppers, pep pills, bennie, speed, ecstasy, etc)	0	4	5	6	7

	<i>Miraa, khat, kangeta, mugoka, giza, majani, veve na madawa ya kijusisimua etc</i>					
f.	Inhalants (nitrous, glue, petrol, paint thinner, etc.) <i>Madawa ya kuvuta ndani, petroli, gluu, petrol ya ndege, etc.)</i>	0	4	5	6	7
g.	Sedatives or Sleeping Pills (Valium/roche, Serepax, Rohypnol, Mandrax, etc) <i>Madawa ya kulala au kuleta usingizi, etc.)</i>	0	4	5	6	7
h.	Hallucinogens (LSD, mushrooms, PCP, Special K, etc.) <i>Madawa ya kulevya ya hallucinogeni</i>	0	4	5	6	7
i.	Opioids (heroin, morphine, methadone, codeine, etc) (<i>Heroini, morphine, methadoni, unga, etc.</i>)	0	4	5	6	7
j.	Other – specify:- <i>Madawa mengineyo ya kulevya, eleza:-</i>	0	4	5	6	7

5.	In the <u>past three months</u>, how often have you failed to do what was normally expected of you because of your use of (FIRST DRUG, SECOND DRUG, ETC)? <i>Kwa muda wa miezi mitatu, ni mara ngapi ambapo umeshindwa kufanya yale ulitakiwa kufanya kwa sababu ya kutumia (DAWA YA KULEVYA YA KWANZA, DAWA YA KULEVYA YA PILI, NK)?</i>	Never	1 or 2 for 3 months	Monthly (1-3x/mth)	Weekly (1-4 x/wk)	Daily or almost daily (5-7x/week)
		(Sijawahi)	(Mara 1 au 2 kwa miezi tatu)	(Kila Mwei)	(Kila wiki)	
a.	Tobacco products (cigarettes, chewing tobacco, cigars, etc.) <i>Bidhaa za tumbako (Sigara, fegi, tumbako, mbaki, etc)</i>					
b.	Alcoholic beverages (beer, wine, spirits etc) <i>Bidhaa za pombe, mvinyo, changaa, busaa, muratina, kaluvu etc.)</i>	0	5	6	7	8
c.	Cannabis (marijuana, grass, pot, hash, hashoil) <i>bhangi, ngwai, hashishi, boza, etc)</i>	0	5	6	7	8
d.	Cocaine (coke, crack, dragon, brown sugar etc) <i>Cocaini, unga, mchele, etc.)</i>	0	5	6	7	8
e.	Khat and amphetamine type stimulants (uppers, pep pills, bennie, speed, ecstasy, etc) <i>Miraa, khat, kangeta, mugoka, giza, majani, veve na madawa ya kijusisimua etc</i>	0	5	6	7	8
f.	Inhalants (nitrous, glue, petrol, paint thinner, etc) <i>Madawa ya kuvuta ndani, petroli, gluu, petrol ya ndege, etc.)</i>	0	5	6	7	8
g.	Sedatives or Sleeping Pills (Valium/roche, Serepax, Rohypnol, Mandrax, etc) <i>Madawa ya kulala au kuleta usingizi, etc.)</i>	0	5	6	7	8
h.	Hallucinogens (LSD, mushrooms, PCP, Special K, etc.) <i>Madawa ya kulevya ya hallucinogeni</i>	0	5	6	7	8
i.	Opioids (heroin, morphine, methadone, codeine, etc) (<i>Heroini, morphini, methadoni, unga, etc.</i>)	0	5	6	7	8
j.	Other – specify:- <i>Madawa mengineyo ya kulevya, eleza:-</i>	0	5	6	7	8

Answer Questions 6 and 7 for all substances ever used (i.e. those endorsed in Question 1)
(Jibu maswali 6 na 7 ikiwa umetumia madawa yote katika Swali la 1)

6.	<p>Has a friend or relative or anyone else <u>ever</u> expressed concern about your use of (FIRST DRUG, SECOND DRUG, ETC)? <i>Je, kuna rafiki au mtu wa jamii yako au mtu mwingine yeyote ambaye <u>ameshawahi kulalamika kuhusu utumiaji wako wa (DAWA YA KULEVYA YA KWANZA, DAWA YA KULEVYA YA PILI, NK)?</u></i></p>	<p>No, Never (La, Sijawahi)</p>	<p>Yes, In the past 3 months Ndiyo, Kwa muda wa miezi mitatu ilionita</p>	<p>Yes, but not in the past 3 months Ndiyo, lakini siyo kwa muda wa miezi mitatu iliopita</p>
a.	Tobacco products (cigarettes, chewing tobacco, cigars, etc.) <i>Bidhaa za tumbako (Sigara, fegi, tumbako, mbaki, etc)</i>	0	6	3
b.	Alcoholic beverages (beer, wine, spirits etc) <i>Bidhaa za pombe, mvinyo, changaa, busaa, muratina, kaluvu etc.)</i>	0	6	3
c.	Cannabis (marijuana, grass, pot, hash, hashoil) <i>bhangi, ngwai, hashishi, boza, etc)</i>	0	6	3
d.	Cocaine (coke, crack, dragon, brown sugar etc) <i>Cocaini, unga, mchele, etc.)</i>	0	6	3
e.	Khat and amphetamine type stimulants (uppers, pep pills, bennie, speed, ecstasy, etc) <i>Miraa, khat, kangeta, mugoka, giza, majani, veve na madawa ya kijusisimua etc</i>	0	6	3
f.	Inhalants (nitrous, glue, petrol, paint thinner, etc) <i>Madawa ya kuvuta ndani, petroli, gluu, petrol ya ndege, etc.)</i>	0	6	3
g.	Sedatives or Sleeping Pills (Valium/roche, Serepax, Rohypnol, Mandrax, etc) <i>Madawa ya kulala au kuleta usingizi, etc.)</i>	0	6	3
h.	Hallucinogens (LSD, mushrooms, PCP, Special K, etc.) <i>Madawa ya kulevya ya hallucinogeni</i>	0	6	3
i.	Opioids (heroin, morphine, methadone, codeine, etc) <i>(Heroini, morphini, methadoni, unga, etc.)</i>	0	6	3
j.	Other – specify:- <i>Madawa mengineyo ya kulevya, eleza:-</i>	0	6	3
7.	<p>Have you <u>ever</u> tried and failed to control, cut down or stop using (FIRST DRUG, SECOND DRUG, ETC)? <i>Umeshawahi kujaribu kujizuia au kupunguza ama kuwacha kutumia (DAWA YA KULEVYA YA KWANZA, DAWA YA KULEVYA YA PILI, NK) na ukashindwa?</i></p>	<p>No, Never (La, Sijawahi)</p>	<p>Yes, In the past 3 months Ndiyo, Kwa muda wa miezi mitatu iliopita</p>	<p>Yes, but not in the past 3 months Ndiyo, lakini siyo kwa muda wa miezi mitatu iliopita</p>
a.	Tobacco products (cigarettes, chewing tobacco, cigars, etc.) <i>Bidhaa za tumbako (Sigara, fegi, tumbako, mbaki, etc)</i>	0	6	3
b.	Alcoholic beverages (beer, wine, spirits etc) <i>Bidhaa za pombe, mvinyo, changaa, busaa, muratina, kaluvu etc.)</i>	0	6	3
c.	Cannabis (marijuana, grass, pot, hash, hashoil) <i>bhangi, ngwai, hashishi, boza, etc)</i>	0	6	3
d.	Cocaine (coke, crack, dragon, brown sugar etc) <i>Cocaini, unga, mchele, etc.)</i>	0	6	3
e.	Khat and amphetamine type stimulants (uppers, pep pills, bennie, speed, ecstasy, etc) <i>Miraa, khat, kangeta, mugoka, giza, majani, veve na madawa ya kijusisimua etc</i>	0	6	3

f.	Inhalants (nitrous, glue, petrol, paint thinner, etc.) <i>Madawa ya kuvuta ndani, petroli, gluu, petrol ya ndege, etc.)</i>	0	6	3
g.	Sedatives or Sleeping Pills (Valium/roche, Serepax, Rohypnol, Mandrax, etc.) <i>Madawa ya kulala au kuleta usingizi, etc.)</i>	0	6	3
h.	Hallucinogens (LSD, mushrooms, PCP, Special K, etc.) <i>Madawa ya kulevya ya hallucinogeni</i>	0	6	3
i.	Opioids (heroin, morphine, methadone, codeine, etc.) <i>(Heroini, morphine, methadoni, unga, etc.)</i>	0	6	3
j.	Other – specify:- <i>Madawa mengineyo ya kulevya, eleza:-</i>	0	6	3

8.	<p>Have you <u>ever</u> used any drug by injection (NON-MEDICAL USE ONLY)?</p> <p>Tick on the appropriate box</p> <p><u>Umeshawahi kutumia dawa ya kulevya kwa kujidunga?</u> (AMBAYO SIO YA MATIBABU)</p> <p><i>Weka tiki kwa kijisanduku kifaacho</i></p>	No, Never (La, Sijawahi)	Yes, In the past 3 months Ndiyo, Kwa muda wa miezi mitatu iliopita	Yes, but not in the past 3 months Ndiyo, lakini siyo kwa muda wa miezi mitatu
	<p>Drugs that can be injected like heroin, cocaine, etc. <i>Madawa ambayo yanaweza kudungwa kwa sindano ni kama heroin, cocaine, nk.</i></p>			

If “YES” to Question 8,

“Further assessment and more intensive treatment may be provided by health professionals at your other primary care setting, or by a specialist drug and alcohol treatment service. We encourage you to tell a health professional at your primary care setting about your history of injecting drugs.”

Uchunguzi zaidi na matibabu zaidi yanaweza kupatikana katika zahanati kupitia kwa wataalamu wa afya katika kituo cha kutibu walevi na watu wanaotumia madawa ya kulevya. Tunakuhimiza uweze kumwelezea mtaalamu katika kituo cha afya kuhusu historia yako ya kujidunga sindano ya madawa ya kulevya.

HOW TO CALCULATE A SPECIFIC SUBSTANCE INVOLVEMENT SCORE.

For each substance (labelled a. to j.) add up the scores received for questions 2 through 7 inclusive. Do not include the results from either Q1 or Q8 in this score. For example, a score for cannabis would be calculated as: **Q2c + Q3c + Q4c + Q5c + Q6c + Q7c**

Note that Q5 for tobacco is not coded, and is calculated as: **Q2a + Q3a + Q4a + Q6a + Q7a**

THE TYPE OF INTERVENTION IS DETERMINED BY THE PATIENT'S SPECIFIC SUBSTANCE INVOLVEMENT SCORE

	Record specific substance score	no intervention	receive brief intervention	more intensive treatment *
a. Tobacco		0 - 3	4 - 26	27+
b. Alcohol		0 - 10	11 - 26	27+
c. Cannabis		0 - 3	4 - 26	27+
d. Cocaine		0 - 3	4 - 26	27+
e. Amphetamine (Miraa)		0 - 3	4 - 26	27+
f. Inhalants		0 - 3	4 - 26	27+
g. Sedatives		0 - 3	4 - 26	27+
h. Hallucinogens		0 - 3	4 - 26	27+
i. Opioids		0 - 3	4 - 26	27+
j. Other drugs		0 - 3	4 - 26	27+