ASSOCIATION BETWEEN AFFECTIVE DISORDER AND POST TRUAMATIC STRESS DISORDERS WITH SEVERITY OF ALCOHOL USE AMONG PATIENTS PRESENTING WITH RELAPSE ALCOHOL USE DISORDER (AUD) IN REHABILITATIONS CENTERS OF KIAMBU COUNTY –KENYA.

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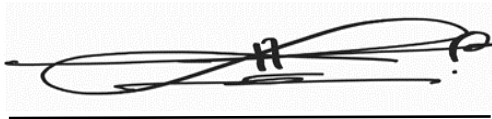JULY 2021

DECLARATION

I Owuor Peter Onyango I declare that this dissertation is my original work and has not been presented for the award of a degree at any other university.

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DEDICATION

This project is dedicated to Dove International Mental Health Hospitals and the selected mental health rehabilitation centers in Kiambu for the entire unconditional support given to me throughout the process. Your support has been invaluable and timeless. I am grateful to God Almighty for the unconditional support He has given me all through and may He bless you more and more with your families too.

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LIST OF ABBREVIATIONS

AUD	Alcohol Use Disorder
DSM-5	Diagnostic and Statistical manual of Mental Disorders, 5th Edition
AUDIT	Generalized Anxiety Disorder
KNH/ERC	Kenyatta National Hospital Ethics Review Committee
PHQ-9	Patient Health Questionnaire 9
AUDIT	Alcohol Use Disorder Identification Test
PTSD	Post-Traumatic Stress Disorder
SPSS	Statistical Package for Social Sciences
UoN	University of Nairobi
WHO	World Health Organization
NSDUH	National Survey on Drug Use and Health
SAMHSA	Substance Use and Mental Health Services
APA	America Psychiatric Association

OPERATIONAL DEFINITIONS

Alcohol Use Disorders   A chronic relapsing brain disease characterized by an impaired ability to stop or control alcohol use despite adverse social, occupational, or health consequences

Comorbid Disorder   This is defined as the presence of co-occuring psychological conditions. Comorbidity is where a psychiatric patient meets the diagnostic criteria for more than one recognized mental disorder.

Affective Disorder   This refers to mood disoders that can involve unipolar depression or bipolar depression. Unipolar depression is characterized by extreme low mood and bi-polar depression extreme shifts between low and elevated mood.

ABSTRACT

Background:

The prevalence of co-morbid disorders have been shown to be problematic among people with AUD .These disorders in Kenya have been documented to be highly associated with relapse.

Study Objective: The aim of the study was to assess the association between Affective Disorders, PTSD and severity of alcohol use among patients presenting with relapsed AUD in rehabilitation centres of Kiambu County

Methodology: This was a cross-sectional descriptive study among 148 participants. Researcher designed sociodemographic questionnaire, AUDIT, PHQ9, mood disorder and PTSD checklist questionnaires were used.

Findings: The mean age of the respondents was 24 years. Most were males and were either married or in a domestic partnership. Most had tertiary level education, were Christian and were living in a home setting. Most of them had a family history of alcohol and substance use and were exposed to alcohol by parents. Depression was most prevalent at 80.7%, AUD 75.6%, Bi-polar 56.8% and PTSD 65.4%. Family history of alcohol and substance use was associated with higher AUDIT (p=0.045), PTSD (p=0.030) and PHQ-9scores (p=0.014) .Exposure to alcohol by parents was associated with higher AUDIT (p=0.015) and mood disorder (p=0.0002) scores.Exposure to child abuse was associated with higher PHQ-9 scores (p=0.034). Higher AUDIT scores were highly associated with having no children, having family history of alcohol use and being of older age than the mean age.

Conclusion: Unstable family structures and childhood upbringing are a risk factor for relapse on alcohol use. The older one gets the greater the risk for relapses. Depression, Bi-polar mood disorder and PTSD are delibitating co-morbidities of AUD and contribute to relapses. Presence of social support as a protective factor in AUD can also be a cause of relapse when the support system is not ensured to provide active social support to the AUD patient.

CHAPTER ONE: INTRODUCTION AND BACKGROUND INFORMATION

1.0 Introduction

Individuals presenting with AUD have impaired control over alcohol use, leading to both severe physiological and physical dependence which lead eventually to detrimental psychological (development of common psychiatric disorders), social, and physical consequences that make them dysfunctional in their environments. The National Institute on alcohol abuse and alcoholism in the United States defines alcohol use disorder (AUD) as "a chronic relapsing brain disease characterized by an impaired ability to stop or control alcohol use despite adverse social, occupational, or health consequences" (Alcohol Facts and Statistics, 2019).

As per the DSM 5's description of this disorder, it can range from mild to severe (APA, 2013). According to Global status report on alcohol and health 2018 (WHO, 2018), it was reported that approximately 3 million people die due to harmful use of alcohol use annually. These statistics are based on accumulative global data in the year 2016. The conclusion made is that 5% of the global disease burden is directly attributed to AUD (WHO, 2018).

1.1 Background Information

Worldwide, substance use particularly in individuals diagnosed with AUD end up with severe common societal problems that affect their families and Country at large and require rehabilitation. In the United States alone, the National Survey on Drug Use and Health (NSDUH) 2018 reported that 14.4 million adults ages 18 and older had AUD. The survey also reported that men were mostly affected. More importantly, among these individuals with AUD, 7.9% received treatment (SAMHSA, 2019). Europe also reports high numbers on AUD cases. In a study that sought to determine the prevalence of AUD in Europe particularly sampling 358 general practitioners across 6 countries in Europe and their findings on AUD diagnosis, it was reported that 11.8% of their patients had AUD. Statistics used in the study were from the 2014

across 6 countries (Mantley et al., 2016). From these populations, having AUD, only 17.7% received professional help, mostly from primary health sectors (Mantley et al., 2016). However, it was importantly noted that AUD is a recurring problem.

In Sub-Saharan Africa, harmful alcohol use and dependency has been identified as risk factor for severe disability that lead to death. In 2012, it was reported that 6.4% of all deaths in the region were attributed to alcohol use. In a study sought to determine the impact of alcohol use among African people, results showed that harmful alcohol use led to 6.4% of deaths in 2012 in the region. That it had led to 4.7% of the total numbers of disabilities in the region (Ferreira-Borges et al., 2015). These figures had increased slightly from the WHO estimates of 2012, which had reported that harmful alcohol use had caused 3.3% of deaths in the region and 2.4% of disabilities (WHO, 2014).

 In Kenya, alcoholism is considered a catastropic social problem with NACADA (2018) reporting increasing numbers of individuals engaging in alcohol use and developing AUDs, although the study did not focus also on comorbid psychiatric disorders. According to Sorensen (2018). The prevalence of substance use disorders, Affective Disorder, post-traumatic stress disorders and psychotic disorders have been shown to be common among people with AUD than in the general population (Melchior, 2014). Comorbidity is the presence, simultaneously or in sequence, of more than one clinical disorder in an individual at same time. Studies in these areas have reported that compared to alcoholics who have comorbid Affective Disorder, depressive disorders are the most prevalant and most challenging disorders to manage when it co-occurs with AUD (Boschloo et al., 2011).

A plausible explanation to why depressive disorders are more common among alcoholics was proposed by Jacob in 2020, which indicated that AUD shared symptoms with clinical depression and therefore it is easy for someone presenting with depression also having similar symptoms of alcohol use problem or vice-versa (Kessler, 2003). In USA, lifetime

prevalence of alcohol use disorder in those with lifetime depressive disorders have been shown to ranges from 27% to 40% across Studies (Hasin, 2018). One longitudinal study showed that depressive symptoms starting childhood tend to double the odds of DSM-5 AUD in young adults (Crum, 2008).

Previous studies in this area form other Countries have shown that the average ages of onset for AUD and depressive disorder are similar, although AUD tend to precede depressive disorders more often than vice versa (Fink, 2016). Further in a meta-analysis of longitudinal and cross-sectional studies, results reported that the odds of depressive disorder in people with AUD was 2 times higher, and for AUD in people with depressive disorder to be 2.1 times higher (Boden, 2011). Therefore the exists a high comorbidity between substance use disorders (SUDs) particularly AUDs with affective disorder and post-traumatic stress disorders.

Generally, similar studies from Africa are scarce. A South Africa study on intrapersonal determinants for AUD that assessed comorbidity with depression and anxiety indicated that these emotional disorders contributed to relapse among alcoholics after treatment (Mahendhree, 2011). In Kenya, a study that explains the intrapersonal determinants of relapse mainly focused on family over involvement and its impact it could have on the recovering addict (Githae, Sirera, & Wasanga, 2016). Otherwise, other factors that have been associated with relapses among individual with AUD in Kenya and possible readmission into treatment facilities are socio-demographics factors and a few psychosocial factors which include; history of use, age at which individuals start using, history of alcoholism in the family (Chepkwony, Chelale, & Barmao, 2013; Githae, Sirera, & Wasanga, 2016).

Unfortunately, there is no epidemiological data from Kenya on the associations between AUD and the range of severe internalizing disorders; Major Depressive Disorder (MDD), Bi-polar Mood Disorders (BMDs) and PTSD. This study was focus on co-morbid AUDs with Affective Disorder and PTSD. Affective Disorder are characterized by

abnormalities of emotional state, these include MDD, dysthymia, and bipolar disorder. Other variant of Affective Disorder include postpartum depression, atypical depression, dysthmia and cyclothymia (APA, 2013).

1.2 Statement of the problem

In Kenya where professionals diagnose co-occurring mental disorders among patients admitted in rehabilitation centres remains a big challenge. Kuria et al. (2012) in their study among in-patients individuals diagnosed with AUD in rehabilitation centers indicated an extreme high relapse rate (>85%). In their study, Kuria et al focused unfortunately on comorbidity of AUD with emotional disorders (MDD and anxiety) and PTSD, but did not assess these comorbidities as psychosocial factors associated with the increased risk of relapse into alcohol use. This inability to assess the psychosocial risk factors as causes of the increased risk of relapse among alcoholics worsens the course of the AUD, as the patients with relapses present with more severe symptoms and disability as these comorbid psychological disorders remain unrecognized (Darghouth, Nakash, Miller & Alegría, 2012).

Alcohol Use Disorders, Affective Disorder and PTSD have been documented to commonly co-occur (Ouimette, Brown, & Najavits, 1998). Unfortunately, there is paucity of epidemiological data in Kenya focusing on psychosocial correlates associated with relapse among individuals being treated for AUDs. According to Anton, et al. (2006) most patients with AUD would relapse within 1 year after treatment. Intial relapse stage has been estimated to be 3 months post treatment. This clearly increases the chances for readmission into a treatment facility. Relapse among alcoholics has been attributed to a number of factors some being family and social support, major life events, personal choices, personality flaws that affect decision making and presence of comorbid psychiatric disorders.

Generally, it is well understood that it is a common occurrence to find that an individuals diagnosed with AUD also have comorbid psychiatric disorder (SAMHA, 2010).

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The presence of this comorbidity usually foretells poor prognosis because it increases the chances of poor treatment adherence and overall management difficulties (Zarkin et al., 2010). In the understanding of the study on association between internalizing disorders and relapse among AUD patients, it was be very essential to study the holistic management of relapse prevention among patients being treated for AUD in rehabilitation centers and other institutions focusing on prevention and treatment according to NACADA mandates.

The symptoms manifected by AUD patients share many proponents with that seen in clinical depressive patients. Jacob (2020) estimates that 30% to 50% of individuals with alcohol use problems are most likely to have depression among other Affective Disorder that belong to the same facet and could easily co-occur. This co-occurrence negatively impacts the course of treatment by causing recurrent relapses and hence readmission into AUD treatment facilities. The prognosis for patients with comorbid disorders is more negative compared with that for non-comorbid patients and hence the possibilities of recurrent relapses.

According to Smith (2016) Studies from Brazil and USA which have documented PTSD symptoms that include intrusive thoughts, avoidance, mood/cognitive and anxiety symptoms occurring after exposure to a traumatic event, the prevalence of comorbid alcohol use disorder in these individuals from the general population ranged between 34% and 55% respectively (De Matos, 2018).

In German among patients receiving alcohol use disorder treatment, the level of PTSD was shown to be at 22·9%, compared to prevalence of 26.2% among women from general population with alcohol use disorder in the USA (Driessen, 2008). According to Kline (2014) it is unfortunate that studies addressing the longitudinal association between PTSD and AUDs are lacking, the general consensus is that traumatic events occurs most often not after one develops AUD and therefore PTSD is an aftermath. For example, in a longitudinal study of US, troops screened before and after deployment to Iraq, pre-deployment alcohol use was

unrelated to the onset of PTSD; however, PTSD symptoms substantially increased the risk of screening positive for new-onset alcohol use disorder. Affective Disorder and PTSD are therefore common comorbid disorders among patients with AUD affecting treatment outcomes.

Comorbid disorders particularly Affective Disorder and PTSD pose severe emotional challenges the patients with AUD have to deal with. Clearly most of the factors associated with Affective Disorder and PTSD have been notably correlated as social and/or psychological in nature described in the history of individuals with AUD. The individual's coping mechanisms as depicted by the alcohol use behavior, and/or psychological extent of the individual's affective disorder behaviors is compounded by negative social factors among inpatients with AUD.

These factors in Kenya have been documented to be highly associated with relapse (Kuria, 2013; Githae, Sirera & Wasanga, 2016) but inpatient information in this regard is scarce. However, it is well understood from other studies that these factors are heterogeneous and therefore it is important to identify them to better understand how best to manage the patient who presents with a relapse. This current study takes a look at inpatients who have relapsed into using alcohol and was attempts to assess factors correlated with relapse among these groups of patients in Kiambu County.

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

This chapter entails the literature review, theoretical framework and conceptual framework. The review of literature in this chapter is done as per the study objectives.

2.1 Prevalence of Affective Disorder among AUD Patients

Psychiatric comorbidities especially Affective Disorder in AUD is a common concern especially on the success of treatment. Boden & Fergusson (2011) found that available data on major depression disorder and AUD showed that ocurrence of one of the disorder was also a predisposition of developing the other.

A study that was conducted to evaluate the impact of mood, affect, and personality on predicting relapse in detoxified alcohol-dependent patients to uncontrolled drinking during a 1-year treatment study, it was reported that the measures could have a direct clinical application for predicting relapse to uncontrolled drinking in male and female detoxified alcohol-dependent patients. The findings indicate the importance of additional therapeutic treatment (Ulrike et al., 2002). The study included 521 patients with AUD and no reported depression. They were then assessed for depression, anxiety and personality traits. The researchers found that most of the participants had high anxiety and personality traits such as high novelty seeking and low harm avoidance covering exploratory excitability, impulsiveness, extravagance, disorderliness and uninhibited optimism, predicted relapse (Ulrike et al., 2002).

In relation to depression and symptoms associated with disorder, Leach & Kranzler (2013) reviewed the literature on interpersonal stress and rejection sensitivity and examined how these factors increase the risk of relapse in individuals with alcohol or drug dependence. They looked into constructs of social pain and social threat, and how they increased individual's vulnerabilities to alcohol use even after treatment.

Their findings were that social rejection that led to development of social pain through isolation a construct of depression indeed led to higher chances of relapses and hence readmission into institutions. Individual personality and environment was determined as a major contributing factor in this case and the researcher through their review of the empirical evidence showed that intrapersonal traits and interpersonal environments interact to increase

an addict's risk of relapse. They concluded that alcohol-dependent individuals with high trait rejection sensitivity and a critical interpersonal environment are particularly vulnerable to relapse (Leach & Kranzler, 2013).

The construct of self-esteem, which comprises both explicit and implicit domains and associated with most Affective Disorder, is also considered key in managing this vulnerability. Low implicit self-esteem is associated with relapse in AUD treatment (Leach & Kranzler, 2013). Githae, Sirera & Wasanga (2016), found that emotional over-involvement (EOI) among close family members with alcoholic patients, was related to relapse among individuals with AUD. The study was conducted in Kenya among inpatients with AUD.

Similar to depression, anxiety and alcoholism frequently occur together, a situation referred to as a dual diagnosis or co-occurring disorders (Alegría et al., 2010). Though the researchers noted that people diagnosed with AUD generally suffered from anxiety during withdrawal, it has been noted that anxiety can continue even post treatment. Therefore relapsing becomes easy since it is a form of self-medication (Alegría et al., 2010). In a study that had been done almost 2 decades ago, a group of 35 patients with AUD who had been diagnosed with phobia, panic or both, were compared to a group that did not report having anxiety problems. Notably there was no difference in the prevalance of relapse among the two groups however, it was noted that patients that had anxiety sighted their reasons for relapsing was to cope with depression, which is a common comorbidity.

They also indicated that their anxiety levels had gone up hence they were increasingly experiencing nervousness, anger and tension after treatment(while sober) (LaBounty, Hatsukami, Morgan, & Nelson, 1992).With regards to how PTSD can have an impact on AUD recovery and relapse, Logrip & Zorrilla (2012) in their study that sought to look into Stress history and its impact on relapse, they found that indeed history of trauma did increase the chances of increased alcohol intake in relapse. This they attributed to changes in the amygdala

and prefrontal cortical. In another study that looked into how patients perceived the relationship between trauma, substance abuse, craving, and relapse, it was reported that besides patients acknowledging that their trauma or PTSD did not make them start drinking alcohol, they also acknowledged that the symptoms related to their PTSD maintained their addiction even after treatment (Nele, Anja, Mignon, Chantal & Remco, 2016).

2.2 Demographic factors associated with relapse among individuals with AUD

These factors are moderators in this study. Age has reportedly been investigated and found to be a factor that influences relapse and abstinence. In an Indian study that looked into factors affecting alcohol relapse in Tertiary care hospital, it was established that most of the individuals with AUD that were included in the study were between the age of 31 and 45 years (Prabhuswami, Vaishali, Prakash & Mahesh, 2015). In a similar study that was done to look into interpersonal model of addiction relapse that involved 40 patients in the United States, it was established that most of the individuals with AUD who had relapsed and readmitted for treatment were less than 30years of age. Previously published studies that focused on age have reported that generally older age predicts better outcomes with regards to abstinence after treatment for AUD. Generally, older individuals with AUD are less associated with relapse and readmission compared to the middle aged and younger persons (Satre, Mertens, Areans & Weisner, 2004: IIgen, Mc.Kellan & Tiet, 2005).

Another factor that have been found to correlate with relapse and readmission in AUD is gender. Most individuals with AUD that relapsed after treatment were mostly men. Their study, which sought to determine the dynamics behind this phenomenon, reported that 94.7% of their participants were men (Nagaich, Radha & Neeraj, 2016). Grelta, Scott, Foss, & Dennis (2008) looked in to the gender difference in treatment relapse and recovery in AUD and they found that women were less likely to experience relapse after AUD treatment compared to their

male counter parts. Contrary to these results, other studies have reported that there is no gender difference in relapse rates in AUD treatment (Bradizza, Stasiewics & Paas, 2006).

As for marital and employment status, in Prabhuswami, et al's study, 76% of the participants were employed, married and staying with the nuclear family. Leach & Kranzler (2013), in their US study established that most of the individuals with AUD who had relapsed and readmitted for treatment were also notably married, unemployed and had lower education status. Nagaich, Radha & Neeraj (2016), in their study which was also done in India, it was also established that most of the relapsed and readmitted individuals with AUD in the study were employed, married and belonged to nuclear families. A finding that is similar to other previous studies (Mattoo et al., 2001). The researchers felt that being married could be a reason for seeking treatment again and at the same time the relapse could also be associated with it particularly with regards to low familial bonding or criticism from partner. One other significant factor that was associated with relapse was the onset of alcohol use and the duration of use. The researcher found that the earlier one had started using was associated with more incidence of relapse during or after treatment and the same was noted for the length or duration of alcohol use (Nagaich, Radha & Neeraj, 2016).

Studies that have been done on the same from Kenya, did not report socio-demographic factors to be associated with relapses. This study therefore seeks to determine if socio-demographics are associated with relapse among AUD outpatients.

2.3 Psychosocial Correlates in Relapse among Patients with Alcohol Use Disorders

Psychosocial correlates are the confounding variables in this study. Relapse and readmission into treatment programs for individuals with AUD has been attributed to a number of psychosocial factors. An Australian study that focused on factors that were generally associated with relapse in substance use treatment which included alcohol use, reported that negative mood states, external pressure to use, desire for positive mood states, and

social/family problems were the main reasons for relapse (Hammerbacher & Lyvers, 2006). These factors were reported in the order of most important to least important factors. The study included 104 participants that have been admitted as in patients in treatment programs. The researchers assessed a number of other psychosocial factors, which included roles of family dysfunction, primary drug of dependence and demographic variables.

Family history of alcohol use and duration of indulgence has also been found to negatively influence treatment of AUD. Mattoo et al. (2001) in their study that also assessed psychosocial factors that were associated with relapse found that history of use was significant. Kuria (2013) also found that history of alcohol use and comencement of use was associated with relapse among alcohlics in Kenya after community based treatment. Mattoo, et al. (2001) also established that history of previous relapses was also associated with continued treatment failure and readmission. The study only included men. The researchers also reported presence of maladaptive coping strategies and indulgence in risky behaviours consequently exposure to negative consequences.

Chepkwony, Chelale, & Barmao (2013), also did a similar study among inpatients admitted for alcohol treatment reported that interaction of past-risks within the individual and environmental situations and level of preparedness to cope with these past-risks to resist drinking were strongly associated with relapse after treatment.

Other factors related to familial factors influencing relapse among patients that have been treated for AUD are exposure to adverse childhood experiences. In a national survey that was undertaken in Manitoba Canada that focused on childhood maltreatment and substance use disorders among men and women, it was generally reported that childhood maltreatment was associated with abuse and dependence on alcohol and other substances (Afifi, Henrisken, Asmundson & Sareen, 2012). Previous published studies have also established that childhood

adverse experiences were associated with excessive drinking in later adulthood especially among women (Widom, White & Czaja, 2007).

Other factors such as homelessness and associated social factors have been related to relapse and readmission in AUD treatment. Fitzpatrick-Lewis et al. (2011), found that one of the public health implications of homelessness were syndetic interactions that made alcohol use worse among other health concerns. Gillis, Dickerson & Hanson (2010), reported that atleast a third of persons that were homeless also experienced problems with alochol and substance use. Therefore, chances that these persons would relapse after treatment and abstinence were two fold compared to persons with homes (Gillis, Dickerson, & Hanson, 2010).

A Kenyan study that also looked into the psychological factors associated with relapse, the key findings were that the psychological factor that mostly contributed to relapse was dwelling on resentment that causes anger and frustration due to unresolved conflict. The social factor that mostly contributed to relapse was hanging around old drinking friends (Conrad, Omulema & Chepchieng, 2016).

Nagaich, Radha & Neeraj (2016), also found that lack of motivation for abstinence had a significant negative predictive effect on treatment outcome. Craving which has been explored from a physiological aspect in this study was also noted as most common cause for relapse in alcohol dependent patients. The researcher however attributed relapse after craving to low motivation to abstain.

It is important to mention that contrary results have been reported concerning relapses and readmission in to hospital for AUD management. Wim Van den, Nicolien, Jolanda & Hermes (2015), found that rehospitalization of older alcohol-dependent patients after detoxification is very common; however, they also noted that it was not predicted by social factors. The researchers established that older persons quickly over indulged in alcohol even after treatment

by simply having some social leisure time, which led to readmission (Wim Van den, Nicolien, Jolanda, & Hermes, 2015).

2.4 Justification of the study

Affective Disorder and PTSD are common comorbidities in clients presenting with AUD. These common comorbid disorders affect treatment outcomes as they cause increased relapse rates in inpatients admitted into rehabilitation centers as they are not recognized and therefore remain unmanaged. Local studies in Kenya have not assessed these common comorbidities and linked them as the main psychosocial risk factors for relapse among these inpatient populations. Thus, there is paucity of epidemiological data that has assessed Affective Disorder and PTSD among clients presenting with AUD relapse readmitted in Kenyan rehabilitation centers. The aim of this study is to examine the prevalence, severity and comorbidity of Affective Disorder, PTSD in inpatients readmitted for rehabilitation for AUDs. The current study is therefore justified to fill in the gap and describe the correlates and severity of the comorbidity.

The results from the study are aimed at informing students, school administrators, health care systems, law and policy makers in making informed judgement on factors associated with relapse and readmission among patients with AUD.

2.5 Significance of the Study

First, this study added available literature on factors associated with relapses and readmission among patients with AUD. It seemed reasonable to institute mechanisms that provide a preventive and promotive environment for young children when they are growing up to prevent exposure to alcohol and drug abuse especially from close family members.

The health care providers also gained through continued education of this multifactorial concept of alcohol use and more importantly psychiatric disorders associated with recurrence

of AUD. It was also give insight into which aspects in therapy the therapist can work on to prevent relapses and admissions after AUD treatment. Through evidence-based information, government and stakeholders are able to plan better with a clear look into the AUD situation in the country as this study results was be inferred to the country.

2.6 Research Questions

1. What is the severity of alcohol use among patients presenting with relapsed AUD in rehabilitation centres of Kiambu County?

2. Is there Prevalence of Affective Disorder and PTSD among patients presenting with relapse of AUD in rehabilitation centres of Kiambu County?

3. Is there Association between relapse into alcohol use and presence of Affective Disorder and PTSD among patients presenting with relapsed AUD in rehabilitation centres of Kiambu County?

2.7 Study Objective

2.7.1 Broad Objective

The broad objective was to assess the association between Affective Disorder, PTSD and severity of alcohol use among patients presenting with relapsed AUD in rehabilitation centres of Kiambu County.

2.7.2 Specific Objectives

1. To document Adverse Childhood experiences and social adjustment problems among patients presenting with relapsed AUD in rehabilitation centres of Kiambu County

2. To determine the prevalence of Affective Disorder and PTSD among patients presenting with relapsed AUD in rehabilitation centres of Kiambu County

3. To assess the severity of alcohol use among patients presenting with relapsed AUD in rehabilitation centres of Kiambu County

4. To assess the association between the severity of alcohol use and presence of Affective Disorder and PTSD among patients presenting with relapsed AUD in rehabilitation centres of Kiambu County

5. To assess the socio-demographic correlates and psycho-social determinants of alcohol relapse among patients presenting with relapsed AUD in rehabilitation centres of Kiambu County

2.8 Theoretical Background

Neuro-Biological Model of Relapse

This model explains the physiological impact of stress on occurrence of a relapse among the AUD patients. Alcoholism or alcohol use disorders are considered recurring problems globally. Relapsing into alcohol use has been shown to be common despite individuals receiving treatment for the disorders (Koob et al., 2004). Initially, relapse was considered a failure of the patients during recovery but now it has been understood to be due to specific causes for instance, a physiological model has been used to explain the reoccurrence of the disorders or higher chances of relapses.

Research into neurobioliogical mechanisms of addiction and addiction recovery by Koob et al., established that alcoholism was related to dysregulation of the stress pathways (Koob et al., 2004). Relapsing individuals with AUD show blunted cortisol responses to challenge, but concurrent assessment of stress-related measures, including HPA axis dysfunction and adrenal sensitivity, increased alcohol craving and anxiety during early alcohol recovery, which could possibly lead to relapse (Lê, Harding, Juzytsch, Funk & Shaham, 2005). Therefore, individuals treated for AUDs are highly vulnerable to relapse once residual rehabilitation period has ended and are back into their communities

2.9 Conceptual Framework

The framework depicts a relationship between exposure variables (Affective Disorder and PTSD) and outcome variable (severity of AUD) as a casual-effect relation; varying according to severity of cofounders and adjusted for by moderating variables. The arrow from exposure to outcome indicates that the severity of the independent variables (Affective Disorder and PTSD) have a significant positive effect on how much alcohol the effected individual users (severity of AUD).

While arrow from confounders to exposure and outcome variables indicate that the severity of independent and outcome variables are determined by the current status of the confounder variables: (a) social adjustment to six problem role areas; (1) work, either as a paid worker, unpaid homemaker, or student, (2) social and leisure activities, (3) relationships with extended family, (4) role as a marital partner, (5) parental role, and (6) role within the family unit, including perceptions about economic; (b) severity of adverse childhood experiences.

Therefore, in the analysis of the data, the effect of the exposure variable was be modeled by controlling the confounders and outcome adjusted to predict indicator variables in the study. Thus, these identified confounder variables indicate a relationship with both exposure and outcome variables. On one hand, the confounders could cause severity of alcohol use (outcome) in the study. The outcome variable in this study (severity of alcohol use) was varying according to the moderating variables.

Figure 1: *Conceptual Framework*

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                    ┌─────────────────────────┐
                    │  Moderating Variables   │
                    │                         │
                    │  Socio-demographic      │
                    │  factors: age, gender,  │
                    │  income, Education level.│
                    └─────────────────────────┘
                                │
                                ▼
┌──────────────────────┐               ┌──────────────────────┐
│ Independent Variable │               │  Dependent Variable  │
│     (Exposure)       │               │                      │
│                      │               │      (Outcome)       │
│ Affective Disorders  │──────────────▶│                      │
│ and PTSD:            │               │  Severity into Relapse│
│                      │               │  alcohol use         │
│ All forms of unipolar│               │                      │
│ depression, Bipolar  │               │                      │
│ Disorder PTSD        │               │                      │
└──────────────────────┘               └──────────────────────┘
              ▲          ┌────────────────────────┐   ▲
               ╲         │  Confounder Variables  │  ╱
                ╲        │                        │ ╱
                 ╲       │  Social Adjustment     │╱
                         │                        │
                         │  Problems and Adverse Effects│
                         │                        │
                         │  Childhood Experiences │
                         └────────────────────────┘
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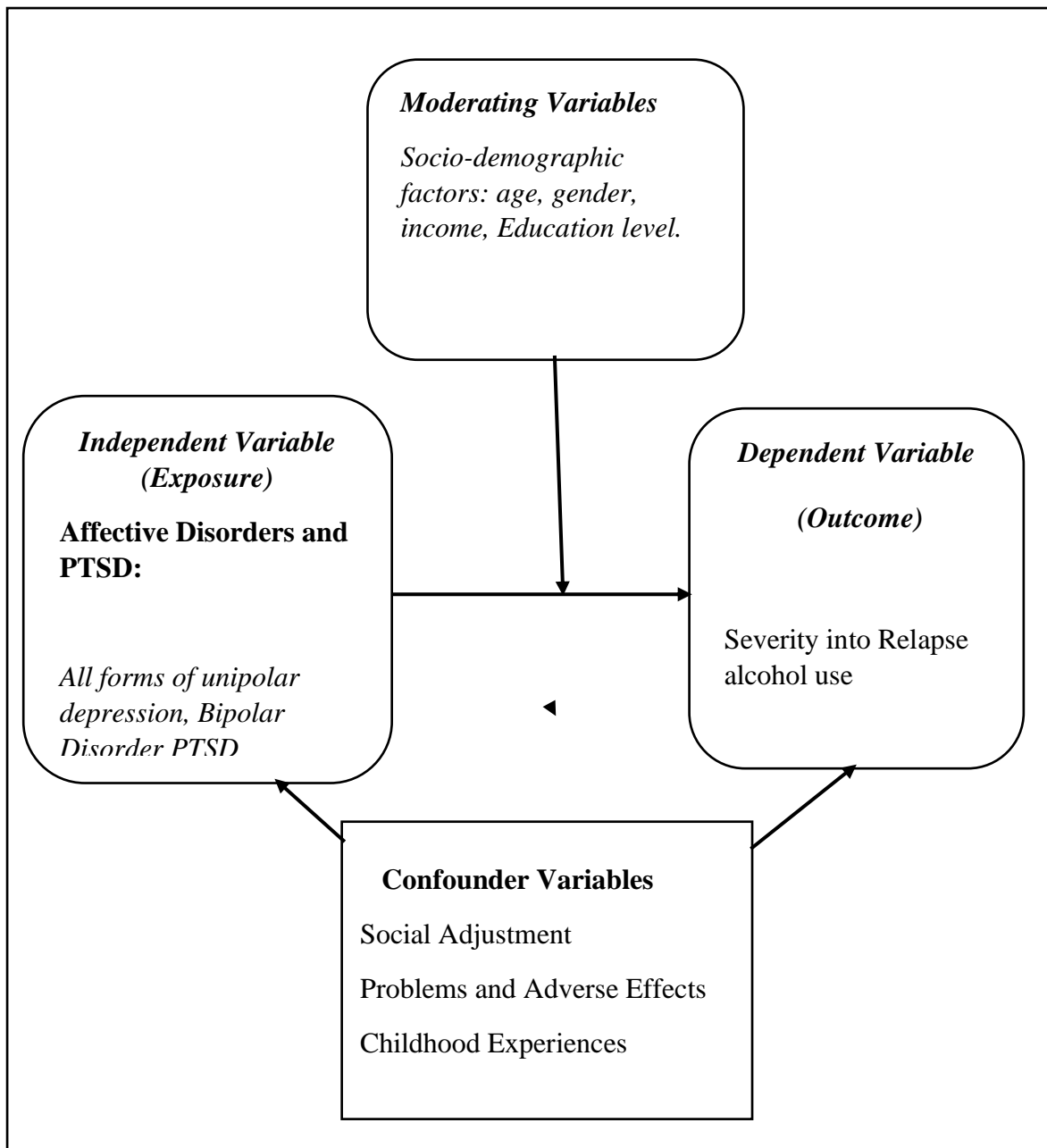
*Author: (***Owuor Peter_2020**)

CHAPTER THREE: METHODOLOGY

3.0 Introduction

The chapter presented in the following sections namely: the research design, target population, sampling design and sample size, data collection, data management and analysis and ethical consideration.

3.1 Study Design

The study involved a cross-sectional descriptive study. This allowed the researcher to collect descriptive data at one point and time measuring both the outcome and exposure as well as confounder variables among patients presenting with relapsed AUD in rehabilitation centres of Kiambu County

3.2 Study Area & Study site

The study was done in Kiambu County in Kenya. The researcher randomly selected rehabilitation centers that offered residential substance use disorders encompassing alcohol treatment or run relapse prevention programs in the County. The prevalence of alcoholism in Kiambu County is considerably high hence; it is notably one of the most affected counties in Kenya. A baseline survey report released in June 2017 on the status of alcohol and drug abuse in Kiambu County showed that 15 per cent of residents aged 15 to 65 are dependent on alcohol, tobacco and bhang. Another 29 per cent abuse at least one substance-alcohol. With a population estimate of 2.5 million in 2017, that estimated 700000 are addicted to alcohol.

3.3 Study Population

The study population involved adult patients above 18 years that had been admitted for AUD treatment in registered and operational rehabilitation centers in Kiambu County.

NACADA has a list of 15 registered and approved Kiambu residential rehabilitation centers with total average of 608 patients per month; each center on average has a total number of 40 inpatients per month. This is expected total number of patients in the rehabilitation

facilities who was be included during the randomization as tabulated in table 3.1. The estimated number of participants with alcohol use per center is 75% of all 608 patients giving rise to approximately to 456 patients; this is a total number of individuals admitted in the rehabilitation centers at any given month in the County with AUD.

Table 1: *Rehabilitation Centres in Kiambu County (NACADA)*

Name of Rehabilitation Centre
Jorgs Trust
Blessed Talbot
Teens Challenge Female Rehabilitation
The Raphaelites
Dove International Mental Health Hospital
Thika Counselling Home
Wonder Peace Rehabilitation Centre
Care Tech Rehabilitation Centre
Sober Living and Recovery
Lifetime wellness Centre
Mediva Wellness Centre
Athena Rehabilitation Centre
Genesis Sober Community
Zawena Treatment Centre
Mama Care Recovery Centre

3.4 Inclusion and Exclusion criteria

The inclusion criteria included:

    i. Patients aged 18yrs and above.

    ii.Patients who gave a consent.

iii. Patients who were registered and were receiving in- patient care and treatment for AUD in the centers.

iv. Patients who could communicate in English or Swahili as the official languages in Kenya.

The exclusion criteria was include:

i. Patients who declined to give consent

ii. Patients who were below 18 years in age

iii. Patients who were not registered to receive in-patient care and treatment for AUD at a given center.

iv. Patients that were unstable or too ill to participate in the study, e.g have alcohol induced psychotic episode.

3.5 Sample Size Determination

The sample size of the adults that participated was calculated by adopting Yamane Taro's sample size determination formula below (Yamane, 1967): $n = \frac{N}{1+N(e)2}$

Where n is the sample size of target population needed for the study

N is the entire population size of target population

e is the level of precision (error estimate) which is 0.05

$n = \frac{N}{1+N(e)^2}$ = $n = \frac{456}{1+456(.05)^2}$ *= 213 Participants Files*

3.6 Sampling Procedure

Systematic random sampling technique was used to select rehabilitation centers to be included in the study sample. To select the different rehabilitation facilities; the centers were listed according to the month and year of registration. To reach a calculated sample size of 213 from estimated 456 patients on treatment for AUD in the County, 8 facilities were required; that is 30 participants per center. This catered for exclusions. The facilities listed, as odd

number was included while listed as even numbers was excluded. The researcher used the systematic sampling method to ensure that the participants reflected the characteristics of patients with AUD from general population who required residual care.

At selected center, all respondents admitted with AUD for rehabilitation and treatment who met the inclusion criteria were approached and recruited after getting clearance from KNH/UON ERB, NACOSTI and head of each rehabilitation center.

3.7 Study Variables

As illustrated in the conceptual framework, the independent variables included all forms of depression, bipolar and PTSD and the dependent variable were the severity into relapse alcohol use. The confounding factors were the adverse childhood experiences and social adjustment problems while the moderating factors were the socio-demographic aspects.

3.8 Study Instruments

A researcher designed socio-demographic questionnaire that focused on the socio-demographic data and adverse childhood experiences of the patients was used to enumerate the effect modifiers and adverse life experiences to set possible causes of Affective Disorder and PTSD. This questionnaire was focused on variables such as age, gender, history and the level of use, residence and salary. This questionnaire also encompassed adverse childhood experiences that documented negative life experiences. The next questionnaire to assess other confounders was socio adjustment problems among the socio demographic factors.

The Patient Health Questionnaire (PHQ) was used in the study as a self-administered tool for depression module, which scores each of the DSM-5 criteria as "0" (not at all) to "3" (nearly every day). Kroenke, Spitzer & Wasiams (2001), found that the PHQ-9 had a sensitivity of 88% and a specificity of 88% for major depression among their study participants. It has been adapted and used in Kenya and translated in Kiswahili,

The PTSD Checklist for DSM-5 (PCL-5) which is a 20-item self-report measure that assesses the presence and Prevalence of PTSD symptoms was also used in the study. Items on the PCL-5 correspond with DSM-5 criteria for PTSD. The PCL-5 can be used to quantify and monitor symptoms over time, to screen individuals for PTSD, and to assist in making a provisional or temporary diagnosis of PTSD. The PCL-5 is a psychometrically sound measure of DSM-5 PTSD. It is valid and reliable, useful in quantifying PTSD symptom severity, and sensitive to change over time in non-military service members and undergraduate students in Kenya.

The Alcohol Use Disorders Identification Test (AUDIT) which is a 10-item screening tool developed by the World Health Organization (WHO) to assess alcohol consumption, drinking behaviors, and alcohol-related problems was also used to determine the level of alcohol use among the participants. AUDIT has been reported to have adequate reliability for most research purposes (weighted reliability estimate centered on .81 (SD = .07) suggesting that the AUDIT generally produces scores of in Africa including Kenya (Patel, 2008). It has been widely used in Kenya, assessing AUDs from different populations,

The Mood Disorder Questionnaire (MDQ) was used to assess for bipolar among the participants. It has 13 questions plus items assessing clustering of symptoms and functional impairment. The MDQ has both good sensitivity and very good specificity (Hirschfeld et al. 2000). The MDQ can correctly identify 7 of 10 patients with bipolar disorder, while 9 of 10 patients without bipolar disorder would be correctly screened out.

3.9 Data collection procedure

The dissertation was presented to the department of Psychiatry, University of Nairobi (UON) for approval. After the approval from Ethics and Research committee (ERC) of KNH/UON, and the the National Commission for Science, Technology and Innovation (NACOSTI). The research permit and an introductory letter from department of Psychiatry,

UON was presented to NACADA. This is because NACADA is the body that regulates and registers the rehabilitation Centers. The permit from NACOSTI, introductory letters from NACADA and UON was be presented to the rehabilitation Centers the researcher intends to work with.

All those who had been admitted in the rehabilitation center for AUD and had signed stating they had consented were subjected to study tools starting with the social demographic questionnaire that had key informant interview questions for qualitative data. All those who had AUD were included in the study. Those who had AUD but also abused other substances or had psychosis were excluded from the study. All the benefits and foreseeable risks were explained to the participants. Invitations to complete the questionnaires: social adjustment problems, AUDIT for severity of alcohol use, PCL-5 checklist for PTSD, PHQ-9 for depressive symptoms and the mood questionnaire for affective disorder was administered to participants, making sure participants had some time to consider their residential rehabilitation plans.

3.10 Recruitment and consenting Procedure

The research involved individuals who received in-patient AUD treatment at the rehabilitation facilities. The researcher sought permission from the KNH/ERC before starting data collection. Selected rehabilitation canters' administration approvals and permission was also obtained before embarking on data collection. The researcher approached the rehabilitation center's administration officer for introduction to all the vital staff members. The researcher worked with the officer in charge towards getting access to the admission numbers of patients that were admitted at the centers for AUD treatment after relapse. Once the numbers were obtained, the researcher liaised with the triage officer after selecting the patients to engage in the study through the inclusion criteria, to have patients who were stable to participate in the study directed to a room that would be secluded for the research activity during the data collection period. This

ensured that the participants' privacy and confidentiality was maintained. Once they agreed to participate, they signed the consent form indicating voluntary participation after understanding what the study entailed. Those who never met the inclusion criteria were thanked and excluded from the study.

The study instruments were self-administered. The data collection tools were a researcher- designed social demographic questionnaire and socio-adjustment problems, the Patient Health Questionnaire (PHQ9) to measure depressive symptoms, PTSD checklist to measure presence of dysfunctionality due to experiences of trauma, Mood Disorders questionnaires to measure bi-polar disorder, and AUDIT to measure hazardous/harmful drinking behaviors and dependence on alcohol. The participant was given a choice to fill-out the questionnaires either in English or in Kiswahili. Those who could not read or write the researcher read out the questions from each questionnaire to them and the responses given were be filled in the answer spaces accordingly.

Each participant had a code set up by the researcher; this was linked to the patient's rehabilitation file number reflected on one's respective questionnaire to ensure anonymity. The study lasted approximately 60 minutes with a break half way into data enumeration process. Feedback on the results will be provided on each patient on request during subsequent visits for treatment and care. After completing the questionnaires, the participants were thanked. The researcher reported at each specific center each day during the data collection period.

3.11 Quality Assurance Procedures

To ensure that quality and integrity of the research is upheld, the data collections tools had been validated and they had been found to be reliable and valid. Self –developed

sociodemographic and socio-adjustment problems questionnaires were administered after a thorough explanation was provided to measure constructs related to adverse childhood experiences and social adjustment problems that cause severe mood and traumatic experiences that play a role in relapses that this study wants to generate as new constructs of this research. There was also be an assurance that there is continuous review of the tools by experts.

A pre-survey of the study site was done to know how many patients receive services at the center and how the rehabilitation centres generally operates to ensure it is a possible site. Pre-testing was conducted to determine the limitation that would be anticipated during the actual data collection and how to overcome them and ensure that the tool captured every aspect of the study and appropriateness for the particular target population. Pretesting of the questionnaires was not done on subjects that were to be part of the sample frame; and on one of the rehabilitation centers from Kiambu County. This was to ensure the case construct, content and face validity are assured of quality.

3.12 Flow Chart of the Data Recruitment Process

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┌─────────────────────────────────────────────────────────────────────────┐
│   ┌ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┐                                              │
│   │ Identified Individual with│                                          │
│   │ AUD                     │              Not within                    │
│   └ ─ ─ ─ ─ ─│─ ─ ─ ─ ─ ─ ┘           Inclusion criteria                │
│              ↓                                        ┌ ─ ─ ─ ─ ─ ─ ─ ┐  │
│   ┌ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┐                          │ Thank &        │  │
│   │   Met Inclusion Criteria │ ───────────────────→   │ Exclude        │  │
│   └ ─ ─ ─ ─ ─│─ ─ ─ ─ ─ ─ ┘                          └ ─ ─ ─ ─ ─ ─ ─ ┘  │
│              ↓  Yes                                   ┌ ─ ─ ─ ─ ─ ─ ─ ┐  │
│   ┌ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┐                          │ Thank &        │  │
│   │ Explained and Obtained consent│ ─────────────→    │ Exclude        │  │
│   └ ─ ─ ─ ─ ─│─ ─ ─ ─ ─ ─ ┘     Respondent Declined  └ ─ ─ ─ ─ ─ ─ ─ ┘  │
│              ↓                     to give consent                        │
│   ┌ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┐                              │
│   │ Administered Data Collection Instruments│                            │
│   └ ─ ─ ─ ─ ─│─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┘                              │
│              ↓                                                            │
│   ┌ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┐                              │
│   │ Terminate Interview & Thank Participants│                            │
│   └ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┘                              │
└─────────────────────────────────────────────────────────────────────────┘
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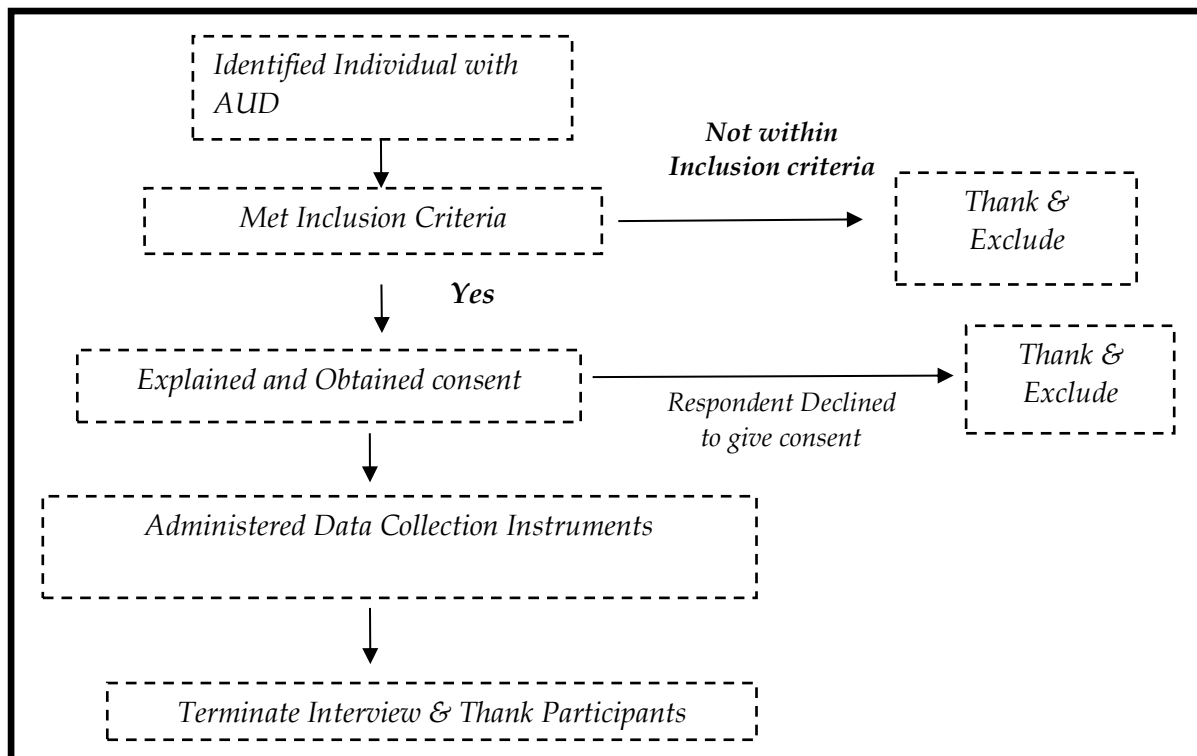
Figure 3. 1: Flow Chart for Data Recruitment Process

Author: **(Owuor, 2020)**

3.13 Ethical Consideration

The researcher sought the approval from the department of psychiatry, UON before submitting for ethical approval from the Kenyatta National Hospital and University of Nairobi Ethics Committee (KNH/UON ERC). After the ethical approval, the researcher sort out research permit from the National Commission for Science, Technology and Innovation (NACOSTI). The research permit and an introductory letter from department of Psychiatry, UON was presented to NACADA. This is because NACADA is the body that regulates and registers the rehabilitation Centers. The permit from NACOSTI, introductory letters from NACADA and UON were presented to the rehabilitation Centers the researcher worked with before embarking on data collection.

Informed consent was given to participants first and signed. All eligible participants were provided with informed consent which had clear indication of the purpose of the study,

data collection process, voluntary participation information, potential risks and benefits of participation in the study, issues of confidentiality and anonymity, contacts for use in case of any questions related to the study. Participation in the study provided an opportunity for one to be screened for adverse childhood experiences, social adjustment problems, experiencing of traumatic symptoms, depression episodes, bipolar mood episodes, severity of alcohol use disorders and to have an understanding how these factors affect their recovery and relapses.

Those with high scores that prompted immediate intervention were referred for treatment and management through the directors of specific rehabilitation for a better understanding of the conditions on their predisposing, precipitating, perpetuating and protecting factors on each individual. Early identification of psychiatric conditions as independent variables in this study helped improve medication adherence and added advantage of psychotherapeutic approaches through referral. There was also the pride of being part of a team that strives to help improve mental health care to benefit society.

The participants responded to personal questions about their lives. There was an assurance of confidentiality and anonymity throughout the entire process. Any emotions evoked during the data enumeration process were normalized before proceeding with the study. Being involved in the entire activity of consenting, completing the questionnaires and screening tests was took approximately 60 minutes for each participant, to avoid exhaustion; participants were given 15 minutes break after first 30 minutes. Coding and serial numbers was be used to ensure the anonymity of the participants, these was only be known to the researcher who was able to link the data to the individual participant.

3.14 Data Management

All paperwork containing information of the respondents was checked for completeness before leaving the field and was kept in a lock and key cabinet which only the researcher could access. All questionnaires were identified through a code allocated to a participant and linked

to their rehabilitation file before data enumeration. This ensured privacy and anonymity was observed. Completed questionnaires was collected and kept in a secure bag and stored in a lockable cupboard where only the researcher could access it. Data was entered in soft copy by data entry clerks and cleared. All soft copy data was under a password, which only the researcher was aware of. After removing the identifiers, the rehabilitation identity admission numbers, the soft data was then sent for data analysis

3.15 Data Analysis Plan

Data analysis used was SPSS version 23.0 windows. Association between the variables with set at of a p-value of <0.05 was presented using Chi-squares. Frequency tables bar graphs and pie charts used to present the socio-demographic factors. Measures of central tendency and dispersion statistics was be used in the describing the data after uni-variate analysis. While measures of association used bi-variate and multivariate statistics applying the chi-square test and building of regression models. Qualitative data was analyzed manually according to themes.

3.16 Results Dissemination

Anonymous data was shared with the University of Nairobi and generally to the rehabilitation centers. Individuals with severe psychopathology; depressive disorders, bipolar mood disorder, PTSD and severe AUD were informed through their individual counselors from each rehabilitation site before being referred for appropriate treatment and management.

3.17 Study Limitation

The assessments were self-administered, which posed a challenge for the researcher in items where there was potentiality of gaining more insight into the perspective of the participants. The researcher could hence also not get more information on the patients

in cases where there was a seen need to do so. Additionaly, more time was needed with the entire institution to teach them more about the screening tools for their future practice and good clinical efficacy.

CHAPTER FOUR: RESULTS PRESENTATION

4.0 Introduction

This chapter involves analysis and presentation of the data collected.

4.1 Response Rate

One hundred and forty-eight participants (148) responded to the study questionnaires.

Figure 2: *Response Rate*

Response Rate

■ Respondents

100%
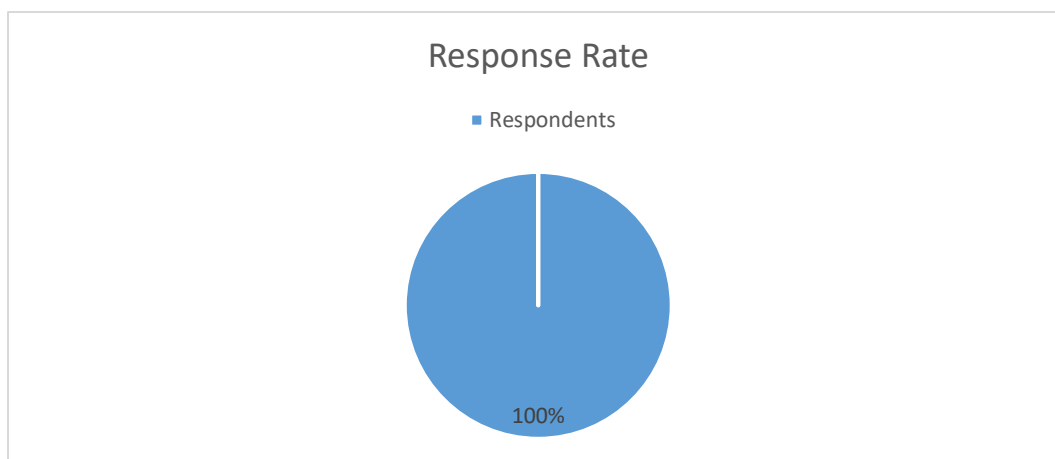
4.2 Socio-demographic characteristics

According to table 2, one hundred and forty-eight participants were enrolled into the study with a mean age of 34.3 years with a standard deviation of 8.8. The average income of the participants was shillings 195,929.20. Almost half 64 (44.1%) were between 25 and 34 years of age while a third 48 (33.1%) were between 35 and 44 years old. Between 18-24 years old, there were 14(9.7%) participants. Majority of these participants were male 122 (83%) with only 25 (17.01%) being female. Almost half 67 (45.9%) of them were single or never married while 79 (54.1%) were married or in a domestic relationship. Very few 3 (2.0%) had primary level of education with almost a third 44 (30%) having secondary level of education and about two thirds 100 (68%) having tertiary level of education. Almost all 131 (90.3%) were Christian with only 7 (4.8%) being Muslim and a similar number being in other religions. Forty (31.3%) had no children while 26 (20.3%) had one child, 34 (26.6%) had two children, 18 (14.1%) had three children while the rest 10 (7.8%) had four children and above. Over two thirds of the participants 101 (68.2%) were living at home whereas 30 (20.3%) were living alone, 13 (8.8%) with relatives and only 4 (2.7%) lived in hostels.

Table 2: *Univariate Analysis of Socio-demographic Characteristics*

Category	n	%

Age	18-24	14	9.66
	25-34	64	44.14
	35-44	48	33.1
	45+	18	12.41
Gender	Male	122	82.99
	Female	25	17.01
Marital Status	Single, never married	67	45.89
	Married or domestic Partnership	79	54.11
Education	Primary	3	2.04
	Secondary	44	29.93
	Tertiary	100	68.03
Religion	Christian	131	90.34
	Muslim	7	4.83
	Other	7	4.83
Children	0	40	31.35
	1	26	20.31
	2	34	26.56
	3	18	14.06
	4	8	6.25
	9	2	1.56
Residence	Hostels	4	2.7
	At Home	101	68.24
	With Relatives	13	8.78
	Alone	30	20.27

Figure 3: *Socio-demographic Characteristics of Respondents*
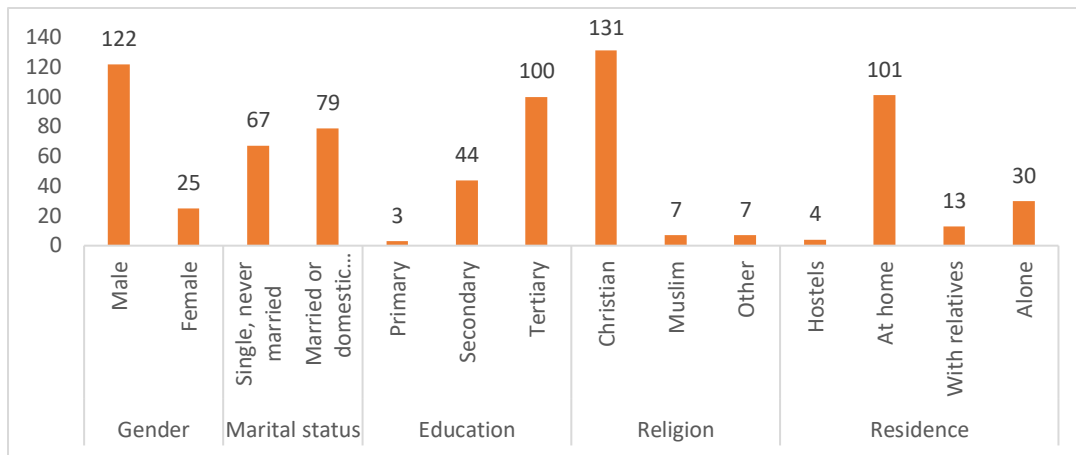
4.3 Socio-demographic Characteristics of Adverse Childhood Experiences and Social Adjustment Problems

According to Table 3, A quarter 37 (25%) of the participants had history of mental illness, 34 (23.3%) had history of Affective Disorder, 129 (87.2%) had family history of alcohol and substance abuse, 68 (48.6%) had been exposed to alcohol by parents, 25 (18.4%) had history of childhood violence from parents and 16 (12.5%) had history of childhood abuse. This shown in the table 3 below. According to Figure 4, a most of the participants had family history of alcohol and substance use and exposure to alcohol by parents as their major adverse childhood experiences and social adjustment problems.

Table 3: *Socio-demographic Characteristics of Adverse Childhood Experiences and Social Adjustment Problems*

Category		n	%
History of mental illness	Yes	37	25
	No	111	75
Affective Disorder	Yes	34	23.3
	No	112	76.7
Family history on alcohol and SU	Yes	129	87.2
	No	19	12.8
Exposure to alcohol by parents	Yes	68	48.6
=	No	72	51.4
Childhood violence from parents	Yes	25	18.4

44

		No	111	81.6
Exposure to child abuse		Yes	16	12.5
		No	112	87.5

Figure 4: *Socio-demographic Characteristics of Adverse Childhood Experiences and Social Adjustment Problems*
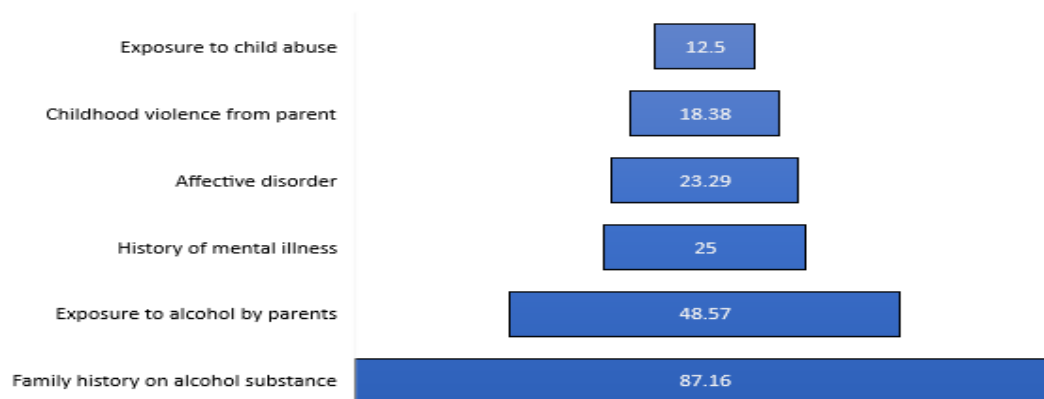
4.4 Prevalence of PTSD, Affective Disorder and Alcohol Use Disorder

Table 4: *Prevalence of PTSD, Affective Disorder and Alcohol Use Disorder*

Characteristic		n	f
AUDIT	Low Risk	16	11.85
	Hazardous/Harmful Drinking	17	12.59
	Likelihood of alcohol Dependence`	102	75.56
PHQ-9	No depression	27	19.29
	Mild depression	35	25
	Moderate depression	21	15
	Moderately severe depression	29	20.71
	Severe	28	20
PTSD	Unlikely PTSD	45	34.62
	Likely PTSD	85	65.38

MDQ				
	Non Bipolar disorder		64	43.24
	Bipolar disorder		84	56.76

Figure 5: *Prevalence of PTSD, Affective Disorder and Alcohol Use Disorder*

Summary statistics	AUDIT	PHQ9	MDQ	PTSD
Mean	24.48148	12.2	24.25893	40.78462
Standard deviation	11.8453	7.983977	3.781762	21.19492
Median	26	11	23	42
Lower percentile	15	6.5	22	22
Upper percentile	35	18	26	61

According to Table 4 and Figure 5 above, the average AUDIT score was 24.4 with a SD of 11.8 with prevalence of AUD being 102 (75.5%) indicating a great number of the respondents had moderate to severe alcohol use disorder. The average score for PHQ9 depression score was 12.2 with a SD of 8 and depression rate of 121 (80.71%) indicating a great number of the respondents had mild depression. The average score for MDQ Affective Disorder score was 24.3 with a SD of 3.8 and prevalence rate 84 (56.8%) indicating a great number of the respondents had moderate to serious levels of Affective Disorder. The average score for PTSD trauma score was 40.8 with a SD of 21.2 indicating that a great number of the respondents had PTSD at a likelihood of 85 (65.38%).

4.5 Bivariate Analysis on Predictors of Observed AUDIT Scores

4.5.1 Bivariate Analysis on Predictors of Observed AUDIT Scores

Table 5: *Bivariate Analysis on Predictors of Observed AUDIT Scores*

Gender	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Male	114	24.80702	1.102486	11.77133	22.62279	26.99124
Female	20	23.25	2.784237	12.45148	17.42253	29.07747
combined	134	24.57463	1.022822	11.84002	22.55152	26.59773
diff		1.557018	2.99457		-4.59869	7.71272
						P- value= 0.608

Maritaial	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Single,	63	24.79365	1.523356	12.09126	21.74851	27.8388
Married	70	24.8	1.351267	11.30551	22.1043	27.4957
combined	133	24.79699	1.009285	11.63964	22.80053	26.79346
diff		-0.00635	2.036304		-4.03518	4.022485
						P value=0.998

History of_mental illness	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Yes	36	21.58333	1.617059	9.702356	18.30053	24.86614
No	99	25.53535	1.247328	12.41075	23.06007	28.01063
combined	135	24.48148	1.019481	11.8453	22.46512	26.49784
diff		-3.95202	2.042231		-8.01525	0.111207
						P Value=0.057

Affective Disorder	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Yes	32	22.59375	1.939539	10.97169	18.63803	26.54947
No	101	25.0099	1.21472	12.20778	22.59993	27.41987
combined	133	24.42857	1.034178	11.92672	22.38286	26.47428
diff		-2.41615	2.288527		-6.99559	2.163292
						P- Value =0.295

Family history on alcohol substance	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Yes	120	25.29167	1.055889	11.56668	23.2009	27.38243
No	15	18	3.216031	12.45564	11.1023	24.8977
combined	135	24.48148	1.019481	11.8453	22.46512	26.49784
diff		7.291667	3.384931		0.168742	14.41459
						p-Value=0.045

Exposure to alcohol by parents	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Yes	61	27.22951	1.514483	11.82849	24.20009	30.25892
No	67	22.07463	1.428266	11.69086	19.223	24.92625
combined	128	24.53125	1.05996	11.99208	22.43378	26.62872
diff		5.154881	2.08173		1.035384	9.274379
						p-value= 0.015

Childhood violence from parent	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Yes	25	23.44	2.267951	11.33975	18.75918	28.12082
No	99	24.57576	1.19256	11.86582	22.20916	26.94235
combined	124	24.34677	1.052954	11.7252	22.26252	26.43103
diff		-1.13576	2.562382		-6.3164	4.044886
						p-value= 0.539

Exposure to child abuse	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]

Yes	15	22.33333	2.970757	11.50569	15.96169	28.70497
No	102	24.33333	1.174648	11.86336	22.00315	26.66352
combined	117	24.07692	1.089845	11.78848	21.91835	26.2355
diff		-2	3.194557		-8.67895	4.678954
						p-value= 0.539

According to table 5 above, family history of alcohol and substance abuse was associated with higher AUDIT scores (*p*=0.045) and so was exposure to alcohol by parents (*p*=0.015) hence were significant predictors to the AUDIT scores. AUDIT scores were comparable between males and females (24.8 vs 23.3, *p*=0.608) and across the various categories of marital status (single 24.8 vs married 24.8, *p*=0.998). However, there were no other variables that appeared to predict the AUDIT scores: history of mental illness (*p*=0.057), Affective Disorder (*p*=0.295), childhood violence from parents (*p*=0.539) and exposure to child abuse (*p*=0.539) were not predictors to the AUDIT Scores

4.5.2 Bivariate Analysis on predictors of observed PHQ-9 scores

Table 6: *Bivariate Analysis on predictors of observed PHQ-9 scores*

Gender	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Male	115	11.98261	0.71467	7.663977	10.56685	13.39836
Female	24	13.625	1.915623	9.384597	9.662232	17.58777
combined	139	12.26619	0.676364	7.974212	10.92881	13.60356
diff		-1.64239	2.044594		-5.81623	2.531444
						P-value= 0.428
Maritaial	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Single,	66	13.27273	1.043024	8.473571	11.18966	15.35579
Married	72	11.51389	0.86828	7.367598	9.782588	13.24519
combined	138	12.35507	0.675531	7.935691	11.01926	13.69089
diff		1.758838	1.357133		-0.92584	4.443516
						P-value=0.197
History of_mental illness	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Yes	37	13.89189	1.450786	8.824788	10.94956	16.83422
No	103	11.59223	0.750206	7.613761	10.1042	13.08026
combined	140	12.2	0.674769	7.983977	10.86586	13.53414
diff		2.299659	1.633276		-0.97032	5.569639
						P value= 0.165
Affective Disorder	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Yes	33	12.57576	1.478399	8.492755	9.564357	15.58716
No	107	12.08411	0.759716	7.858563	10.5779	13.59032
combined	140	12.2	0.674769	7.983977	10.86586	13.53414
diff		0.491645	1.662177		-2.84506	3.82835
						P value=0.769

Family history on alcohol substance	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Yes	121	12.81818	0.726515	7.991662	11.37973	14.25663
No	19	8.263158	1.581771	6.894781	4.93998	11.58634
combined	140	12.2	0.674769	7.983977	10.86586	13.53414
diff		4.555024	1.740639		0.984243	8.125805
						P value=0.014
Exposure to alcohol by parents	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Yes	64	12.96875	0.975638	7.805104	11.01909	14.91841
No	68	12	0.99538	8.208114	10.01321	13.98679
combined	132	12.4697	0.696264	7.999465	11.09232	13.84707
diff		0.96875	1.39379		-1.78831	3.725807
						P value=0.488
Childhood violence from parent	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Yes	23	12.34783	1.707469	8.188732	8.806753	15.8889
No	105	12.19048	0.773306	7.924033	10.65698	13.72397
combined	128	12.21875	0.701775	7.939672	10.83006	13.60744
diff		0.15735	1.87442		-3.6583	3.972998
						P value=0.934
Exposure to child abuse	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Yes	14	16.5	1.912222	7.15488	12.3689	20.6311
No	107	11.7757	0.777631	8.043875	10.23397	13.31743
combined	121	12.32231	0.732953	8.06248	10.87112	13.77351
diff		4.724299	2.064292		0.392379	9.056219
						P value=0.034

According to table 6 above, family history of alcohol and substance abuse was associated with higher PHQ-9 scores ($p=0.014$) and so was exposure to child abuse ($p=0.034$). PHQ-9 scores were comparable between males and females (11.98 vs 13.63, $p=0.428$) and across the various categories of marital status (single 13.3 vs married 11.5, $p=0.197$). However, there were no other variables that appeared to predict the PHQ-9 scores: history of mental illness ($p=0.165$), Affective Disorder ($p=0.769$), exposure to alcohol by parents ($p=0.488$) and childhood violence from parents ($p=0.934$).

4.5.3 Bivariate Analysis on Predictors of Observed Mood Disorder Scores

Table 7: *Bivariate Analysis on predictors of observed Mood Disorder Scores*

Gender	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Male	94	24.2766	0.380972	3.693657	23.52006	25.03313
Female	18	24.16667	1.02022	4.328429	22.01419	26.31914
combined	112	24.25893	0.357343	3.781762	23.55083	24.96703
diff		0.109929	1.089031		-2.14527	2.365124
						P-value=0.921
Maritaial	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Single,	55	23.50909	0.459008	3.404097	22.58883	24.42935
Married	55	24.81818	0.529971	3.93037	23.75565	25.88071
combined	110	24.16364	0.354532	3.718358	23.46097	24.86631
diff		-1.30909	0.701112		-2.69885	0.080669
						P-value=0.065
History of_mental illness	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Yes	26	23.26923	0.638647	3.256473	21.95391	24.58455
No	86	24.55814	0.419955	3.894505	23.72316	25.39312
combined	112	24.25893	0.357343	3.781762	23.55083	24.96703
diff		-1.28891	0.764351		-2.82388	0.246064
						P value= 0.0979
Affective Disorder	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Yes	23	23.21739	0.711166	3.410632	21.74252	24.69226
No	87	24.42529	0.410251	3.826566	23.60974	25.24084
combined	110	24.17273	0.358586	3.760878	23.46202	24.88343
diff		-1.2079	0.821013		-2.86804	0.452246
						P value=0.149
Family history on alcohol substance	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Yes	100	24.04	0.357861	3.578612	23.32993	24.75007
No	12	26.08333	1.443157	4.999242	22.90697	29.2597
combined	112	24.25893	0.357343	3.781762	23.55083	24.96703
diff		-2.04333	1.486865		-5.26481	1.178147
						P value=0.193
Exposure to alcohol by parents	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Yes	51	22.82353	0.376471	2.688538	22.06737	23.57969
No	56	25.33929	0.535298	4.005799	24.26653	26.41205
combined	107	24.14019	0.352948	3.65092	23.44043	24.83994
diff		-2.51576	0.654426		-3.81438	-1.21714
						P value= 0.0002
Childhood violence from parent	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Yes	18	24.83333	0.848875	3.60147	23.04236	26.6243
No	85	23.96471	0.386917	3.567202	23.19528	24.73413
combined	103	24.1165	0.351847	3.570854	23.41862	24.81439
diff		0.868628	0.932895		-1.05097	2.788229
						P value=0.361
Exposure to child abuse	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Yes	13	23.38462	0.594186	2.142369	22.08999	24.67924
No	82	24.30488	0.427766	3.873586	23.45376	25.156
combined	95	24.17895	0.378593	3.690064	23.42724	24.93065
diff		-0.92026	0.732148		-2.41796	0.577433
						P value=0.219

According to table 7 above, exposure to alcohol by parents was associated with higher Mood Disorder scores ($p=0.0002$). Mood Disorder scores were comparable between males and females (24.3 vs 24.2, $p=0.921$) and across the various categories of marital status (single 23.5 vs married 24.8, $p=0.065$). There were no other variables that appeared to predict the Mood Disorder scores: history of mental illness ($p=0.098$), Affective Disorder ($p=0.149$), family history of alcohol and substance abuse ($p=0.193$), childhood violence from parents ($p=0.361$) and exposure to child abuse ($p=0.219$).

4.5.4 Bivariate Analysis on Predictors of Observed PTSD scores

Table 8: *Bivariate Analysis on predictors of observed PTSD scores*

Gender	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Male	108	40.81481	2.058934	21.39707	36.73322	44.89641
Female	22	40.63636	4.404123	20.65717	31.47749	49.79524
combined	130	40.78462	1.858917	21.19492	37.1067	44.46253
diff		0.178451	4.861636		-9.72668	10.08358
					P-value= 0.971	
Maritaial	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Single,	59	43.57627	2.978219	22.87613	37.61472	49.53782
Married	69	39.14493	2.336036	19.40457	34.48344	43.80642
combined	128	41.1875	1.865651	21.10743	37.49571	44.87929
diff		4.431344	3.785083		-3.06536	11.92805
					P-value=0.244	
History of_mental illness	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Yes	32	40.84375	3.786678	21.42069	33.12077	48.56673
No	98	40.76531	2.144712	21.23157	36.50865	45.02197
combined	130	40.78462	1.858917	21.19492	37.1067	44.46253
diff		0.078444	4.351864		-8.64779	8.804676
					P value= 0.986	
Affective Disorder	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Yes	32	38.75	3.902801	22.07758	30.79019	46.70981
No	96	41.88542	2.140046	20.96808	37.63689	46.13394
combined	128	41.10156	1.874404	21.20646	37.39246	44.81067
diff		-3.13542	4.451028		-12.0664	5.795565
					P value= 0.484	
Family history on alcohol substance	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Yes	115	42.21739	1.968082	21.10533	38.31864	46.11615
No	15	29.8	4.939828	19.13187	19.20512	40.39488
combined	130	40.78462	1.858917	21.19492	37.1067	44.46253
diff		12.41739	5.317448		1.303665	23.53112
					P value= 0.030	
Exposure to alcohol by parents	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Yes	62	42.98387	2.795658	22.01303	37.39361	48.57413
No	61	39.7541	2.643856	20.64918	34.4656	45.0426
combined	123	41.38211	1.922513	21.3217	37.57631	45.18792

diff		3.229773	3.847815		-4.38692	10.84646
						P value= 0.403
Childhood violence from parent	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Yes	24	42.04167	4.744363	23.24254	32.2272	51.85613
No	96	40.625	2.145643	21.02292	36.36536	44.88464
combined	120	40.90833	1.952697	21.39072	37.0418	44.77487
diff		1.416667	5.206992		-9.16653	11.99987
						P value=0.787
Exposure to child abuse	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
Yes	14	41.28571	4.611773	17.25567	31.32259	51.24884
No	100	41.53	2.207767	22.07767	37.14931	45.91069
combined	114	41.5	2.011582	21.47781	37.51469	45.48531
diff		-0.24429	5.112991		-10.8936	10.40497
						P value=0.962

According to table 8 above, family history of alcohol and substance abuse was associated with higher PTSD scores ($p=0.030$). PTSD scores were comparable between males and females (40.8 vs 40.6, $p=0.971$) and across the various categories of marital status (single 43.6 vs married 39.1, $p=0.244$). However, there were no other variables that appeared to predict the PTSD scores: history of mental illness ($p=0.986$), Affective Disorder ($p=0.484$), exposure to alcohol by parents ($p=0.403$), childhood violence from parents ($p=0.787$) and exposure to child abuse ($p=0.962$).

4.6 Socio-demographic Correlates and Psycho-social Determinants of Alcohol Relapse

4.6.1 Categorization of AUDIT Scores

Table 9: Categorization of AUDIT Scores

AUDIT Category	f	%
<8 No harm	16	11.8
8-14 Harm but no Dependance	17	12.6
15-20 Addicted	15	11.1
21-30 Moderate	30	22.2
> Severe	57	42.2
0-14	33	24.44
>14	102	75.6
	135	**100**

Figure 6: *Categorization of AUDIT Scores*
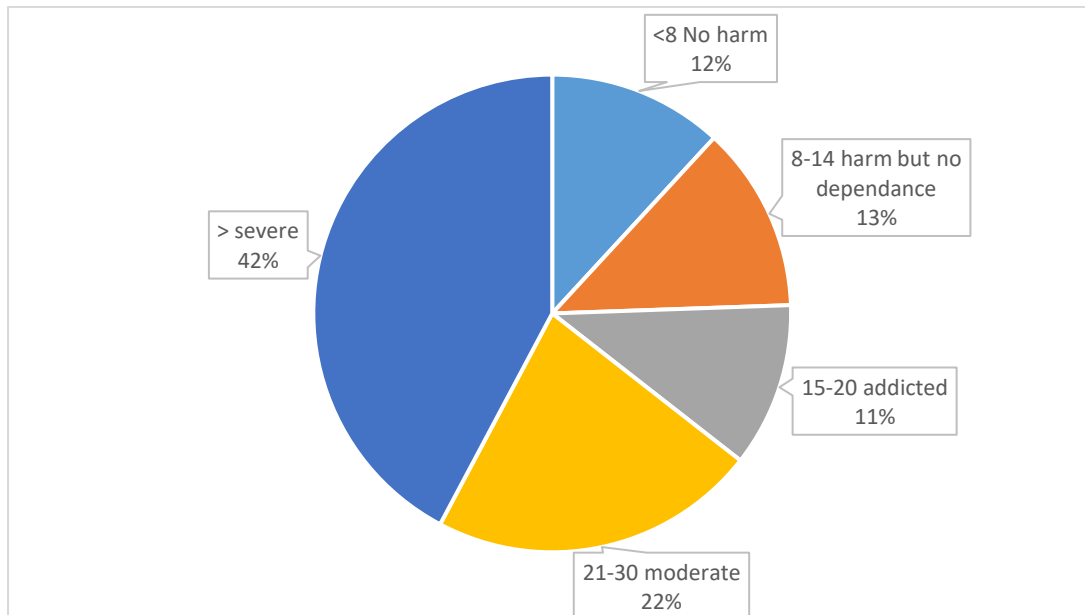
From the table 9 and figure 6 above, almost half of the participants 57 (42.2%) had severe alcohol dependency with 30 (22%) of them being on moderate severity level of alcohol use. Those who were addicted/dependant were 15 (11.1%). Most of the respondents had AUD 102 (75.6%)

4.6.2 Factors Associated with Categorized AUDIT Scores

Figure 7: *Factors Associated with Categorized AUDIT Scores*
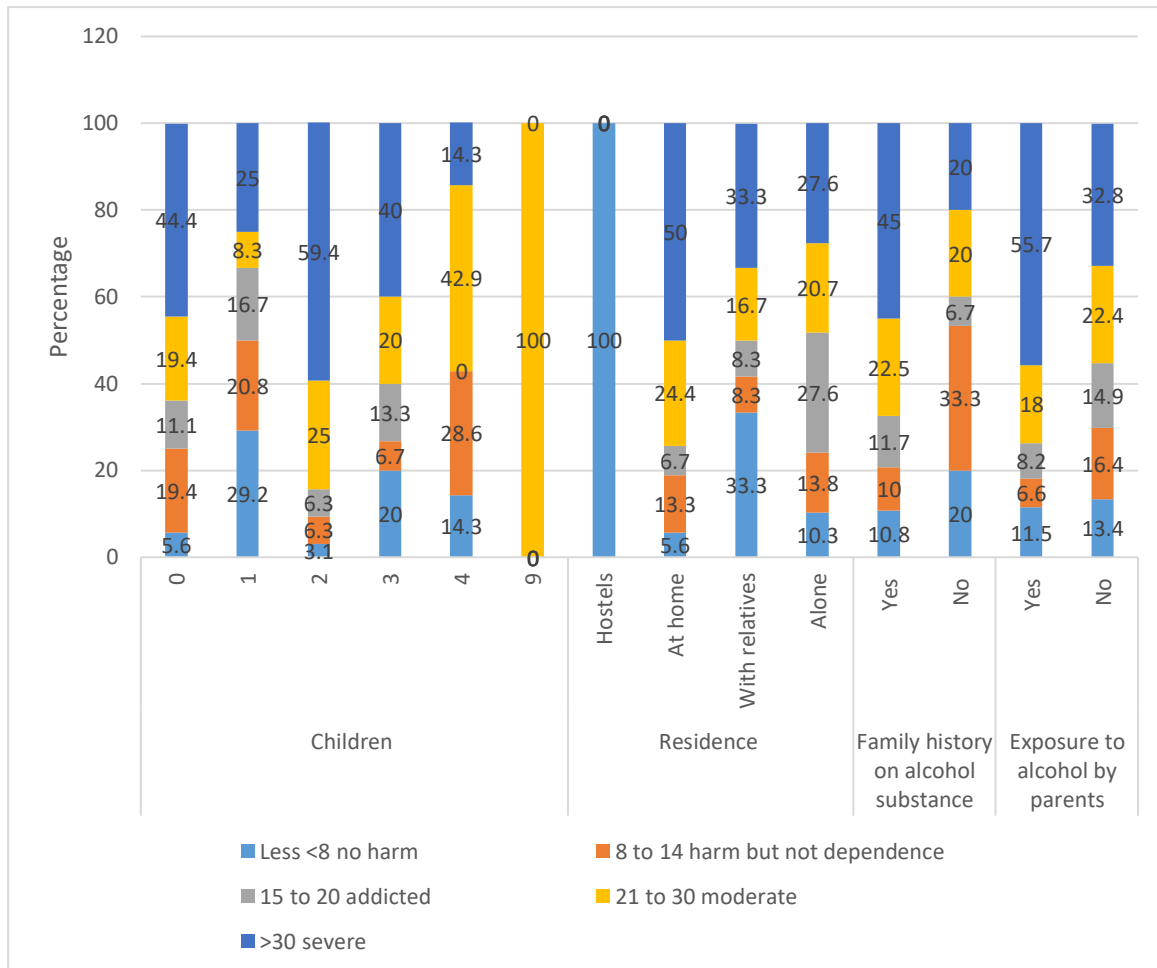
According to figure 7 above, there were significant differences in the categories of AUDIT scores by number of children (*p*=0.004), Residence (p<0.001), family history of alcohol and substance abuse (*p*=0.015) and exposure to alcohol by parents (*p*=0.030).

4.6.3 Factors Associated with Re-categorized AUDIT Scores

Figure 8: Factors Associated with Re-categorized AUDIT Scores
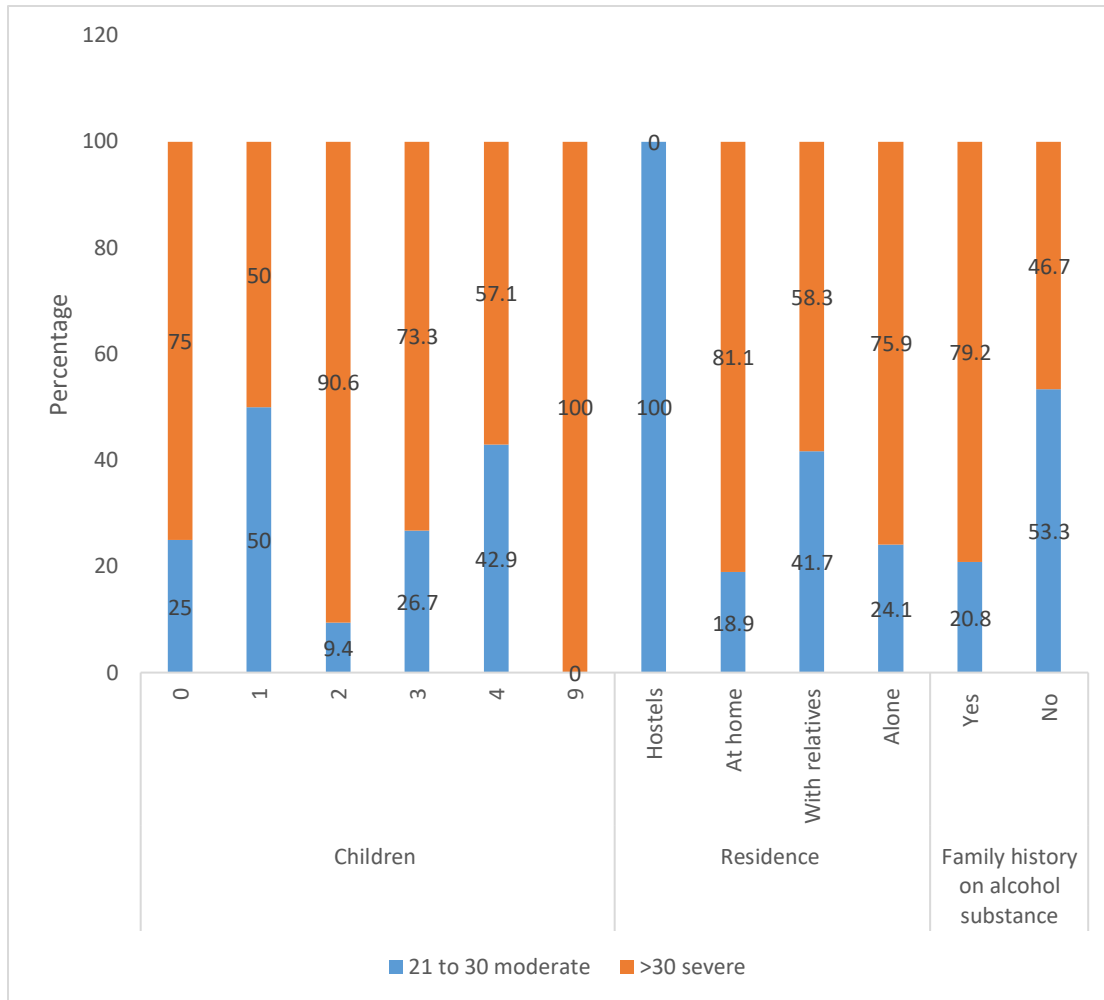
According to figure 8 above, on re-categorization, the following remained as associated with the outcome; number of children (p=0.021), residence (p=0.001) and family history of alcohol and substance abuse p=0.006)

4.6.4 Multivariate Analysis on Independent Factors Associated with Re-categorized AUDIT scores

Table 10: Independent Factors Associated with Re-categories AUDIT scores

Logistic regression	UAR				AOR			
	Coef.	p-value	[95% Conf Interval] lower	upper	Coef.	p-value	[95% Conf Interval] lower	upper
Children								
0	1	.	.	.	1	.	.	.
1	0.333	0.05	0.111	1.001	0.09	0.003	0.018	0.442
2	3.222	0.103	0.788	13.17	1.274	0.799	0.197	8.223
3	0.917	0.901	0.233	3.61	0.075	0.018	0.009	0.637
4	0.444	0.343	0.083	2.376	0.014	0.001	0.001	0.19
9	1	.	.	.	1	.	.	.
Family history on alcohol substance								
Yes	1	.	.	.	1	.	.	.
No	0.23	0.009	0.076	0.696	0.063	0.002	0.011	0.349
Age								
18 to 24	1	.	.	.	1	.	.	.
25 to 34	1.028	0.965	0.303	3.485	2.596	0.268	0.481	14.018
35 to 44	5.417	0.027	1.207	24.308	37.044	0.003	3.534	388.291
45+	2.778	0.226	0.532	14.504	52.018	0.005	3.385	799.43

According to table 10 above, compared with participants with no children, those with three children had lower AUDIT scores (OR=0.1 [95% CI of OR 0.01-0.6], *p*=0.018) than those with four children (OR=0.1 [95% CI of OR 0.01-0.6], *p*=0.001). Compared to those with family history of alcohol and substance abuse, those without this history had lower AUDIT scores (OR=0.1 [95% CI of OR 0.01-0.19], *p*=0.002). However, older age was associated with higher AUDIT scores where, compared with those between 18 and 24 years of age, those in the age bracket of 35 to 44 years were more likely to have higher scores (OR=37.0 [95% CI of OR 3.5-388], *p*=0.003) and so were those in the age bracket of more than 44 years (OR=52 [95% CI of OR 3.4-799], *p*=0.005).

CHAPTER FIVE: DISCUSSION OF FINDINGS

5.0Introduction

This chapter involves a discussion of the results, conclusion and recommendations.

5.1 Socio-demographic characteristics of Adverse Childhood Experiences and Social Adjustment Problems

The study showed that the mean age of the respondents was 24years as many of them belonged to the age group of 25-34 years. That one was more likely to relapse by being of male gender and being either married or in a domestic partnership hence in a long-term relationship commitment. The participants of the study included many learned individuals who had achieved tertiary level of education. Most of the respondents were Christians and lived at a home setting. Many respondents did not have children.

The National Institute of Alcohol Abuse and Alcoholism in the United States supports this that more males than females are affected and that individuals older than 18years of age had Alcohol Use problems. (SAMSHSA, 2019). Another study in the USA among 40 addiction relapsed patients found most of the patients to be below 30 years of age (Satre et al., 2005). In India, ahe group was from 31 to 45 years (Prabhuswami et al., 2015). These differences in ages can be accrued to socio-cultural differences.

Prabhuswami et al (2015) also found those who relapsed were mostly married, employed and were staying with a nuclear family. These findings had the researcher accrue being married and from a tight knit/close family ton make one vulnerable to criticisms from loved ones hence the relapses. The studies had most of the respondents having a family history of alcohol and substance use and were exposed to alcohol by their parents. Nagaich et al (2016) agrees that the earlier one had started using or been exposed to alcohol use the more one had incidences of relapse during or after treatment.

5.2 Prevalence of Affective Disorder and PTSD

Most of the respondents had depression and bipolar mood disorder. Depression was however most prevalent at a rate of 80.7%. Bi-polar mood disorder at the rate of 56.8% and PTSD 65.4%. According to Boschloo et al (2011) studies have shown that depressive disorder to be a more common than bi-polar disorder and also most challenging when in occurs with AUD. Kessler (2003) found that depression presents with clinical presentations more similar to AUD making it challenging to treat the disorder solely.

The study found higher rates of co-morbid depression, bi-polar and PTSD to AUD compared with other studies. Jacob (2020) estimates 30% to 50% prevalence of Affective Disorder among those with AUD. In Germany, PTSD level among patients receiving treatment for AUD was found to be 22.9% (Driessen, 2008). The high rates of co-morbidity is directly proportional to the high prevalence rate of AUD found in the study. Neuro-biological model of relapse according to Koob et al (2004) explains that alcoholism is related to dysregulation of the stress pathways so that relapsing individuals show blunted cortisol responses. This places challenging the development of disorders strongly dependant on cortisol mechanism a problem. In addition, changes in the amygdala and prefrontal cortex that occur due to the trauma can also cause increase chances for alcohol intake hence relapses (Logrip & Zorilla, 2012)

Alegria et al (2010) found that in general, AUD patients suffer anxiety during withdrawal and this anxiety has been shown to continue even after treatment. Hence, the development of PTSD as an aftermath of AUD, that PTSD symptoms are the ones that cause increased risk of screening positive for further relapses (KLINE, 2014). Alegria (2010) explains that the reasons for furthur relapsing was to cope with depression that came about due to dealing with the symptoms of increased anxiety levels. Additionally, Nele et al (2016) furthur found that the participants perceived their trauma or PTSD to not initially make them

start drinking alcohol but the symptoms related to the PTSD maintained their addictions even after treatment.

5.3 Severity of Alcohol Use related with AUD

Alcohol Use Disorder score was 75.6% indicating a great number of the respondents had moderate to severe alcohol use disorder. This was shown by 42% of the respondents having severe alcohol dependency with 22% of them being on moderate level of use and 11.1% being addicted /dependant. Prevalence of AUD among those with depressive disorder in the USA has been shown to be between 27% and 40% (Hasim, 2018). In Europe, across 6 countries, 11.8% of the patients had AUD. The study has significantly higher severity of alcohol use related with AUD compared to other studies among individuals in rehabilitation centers. This is because the study was done in an area where it is known for highest prevalence of alcohol abuse in the country. The community registers highest levels of alcohol consumption, increasing trend in second generation and traditional alcohol with reducing trend in first generation alcohol, ease of availability, affordability and accessibility of alcohol (NACADA, 2010).

5.4 Predictors of Severity of AU, Affective Disorder and PTSD

Family history of alcohol and substance abuse was associated with higher AUDIT, PTSD and PHQ-9 scores. Exposure to alcohol by parents was associated with higher AUDIT and Mood Disorders scores. Additionally, exposure to child abuse was associated with higher PHQ-9 scores. Kuria (2013) found that in Kenya, history of use and start of use was associated with relapse among alcoholics in community-based treatment. Childhood maltreatment and adverse conditions was associated with excessive drinking in later adulthood (Widom et al, 2007)(Afifi et al., 2012), Hammerbacher & Lyvers (2006) study found that negative mood states, external pressure to use, desire for positive mood states and social/familial problems were main reasons for relapse.

5.5 Socio-demographic Correlates and Psycho-social Determinants of Alcohol Relapse

The study found out that participants with no children had higher scores than those with children. That compared to those with family history of alcohol and substance abuse, those without this history had lower AUDIT scores. Older age was associated with higher AUDIT scores where, compared with those between 18 and 24 years of age, those in the age bracket of 35 to 44 years were more likely to have higher scores and so were those in the age bracket of more than 44 years.

According to Crum (2008), a longitudinal study showed that depressive symptoms that start in childhood tend to double the odds of AUD developing in young adults. This can then continue to be a pattern as one ages hence worsening of AUD condition with age. Additionally, according to Kessler (2003) depression presents with clinical presentations more similar to AUD making it challenging to treat the solely hence it continues to be a delibitating factor in the course of treatment of AUD as one ages.

Psychological conditions are triggered by environmental and family factors that involve adverse conditions .The study found it most significant that higher AUD scores were found among those with family history of alcohol and substance use and having no children one is taking care of. A study by Chepkwony & Githae (2016) showed that history of use, age at which one started using and history of alcoholism in the family were significant psychosocial factors that have been associated with relapses among individuals with AUD in Kenya.

5.6 Conclusion

The findings for this study add a literature of associating childhood trauma, abuse, and child exposure to social gatherings of people taking Alcohol with behavioural addiction as a key indicator to other stress-inducing and traumatic experiences linked to an elevated vulnerability to alcohol addiction and other mental illness. Those who had experienced such things during childhood have shown an increased tendency to become dependent on alcohol relapse.

The study also points on unstable family structures, childhood upbringing, and family history of mental illness as risk factors for relapse on alcohol use. The older one gets the greater the risk for relapses. Depression, Bi-polar mood disorder and PTSD as co-morbidities of AUD can occur due to AUD and they also can cause difficulty in treating AUD due to the symptoms they elicit that can mimic those of AUD or be extremely overwhelming causing treatment of AUD a challenge.

Since a child's circumstances and experiences shape his or her physical and psychological development, it follows from the study that youth between the age 25-45 Years are the most vulnerable group addicted to Alcohol addiction with high relapse rate which clinically translates to early exposure to social places by their parents/gurdians which influnces child experience often leads to the brain developing in ways which can impede or otherwise alter the brain's development leading to early experimenting of drugs at early stages in life which is believed to be behind certain anomalies in brain structure that result in cognitive, behavioral and social impairments.

5.7 Recommendations

- Institute mechanisms that provide a preventive and promotive environment for young children when they are growing up to prevent exposure to alcohol and drug abuse especially from close family members.

- Social media and existing television channels to launch more advocacy strategies in educating parents on threats of exposing their loved ones to bars etc as major threats to their brain development and early intervention to AUD management.

- Schools Heads to be educated on how to manage young adolescents presenting with oppositional defiant disorder through conducting drug tests and counseling management sessions to curb AUD, which is a major precussor to AUD addiction.

- Mental health institutions and rehabilitation center management and the entire clinical team to be fully oriented with basic mental health screening tools to be able to administer at the time admission and discharge to be able to capture current state of the patient for good and refined treatment plan, exit and management.

- Health care personnel working in rehabilitation centers to be provided with additional training to acquire knowledge and skills in administering additional mental health screening tools that may be crucial in determining other risk factors in their patients which may be pointers to the possibility of relapse as they initiate their treatment plan.

- Undertake additional research studies to explore feasible interventions that could be applied in the family set up and extend the scope of rehabilitation centers beyond their facilities

REFERENCES

Afifi, O. T., Henrisken, C. A., Asmundson, J. G., & Sareen, J. (2012). Childhood Maltreatment and Substance Use Disorders Among Men and Women in a Nationally Representative Sample . *Canadian Journal of Psychiatry*, 57(11): 677-686.

Alcohol Facts and Statistics. (2019, December). Retrieved from National Institute on Alcohol Abuse and Alcoholism.

Alegría, A. A., Hasin, D. S., Nunes, E. V., Liu, S.-M., Davies, C., Grant, B. F., & Blanco, C. (2010). Comorbidity of Generalized Anxiety Disorder and Substance Use Disorders: Results from the National Epidemiologic Survey on Alcohol and Related Condition. *The journal of Clinical Psychiatry*, 71(9), 1187-1195.

Anton, R., O'Malley, S., Ciraulo, D., Cisler, R., Couper, D., & Donovan, D. (2006). Combined pharmacotherapies and behavioral interventions for alcohol dependence: The COMBINE study: A randomized controlled trial. *JAMA*, 295:2003–17.

APA. (2013). *Diagnostic and Statistical Manual of Mental Disorders - Fifth Edition* . Arlington, VA: American Psychiatric Association .

Appiah, R., Bakye, E. K., Ndaa, P., & Aziato, L. (2018). "Tougher than ever": An exploration of relapse prevention strategies among patients recovering from poly-substance use disorders in Ghana. *Drugs: Education. Prevention & Policy* , 26(6): 476-474.

Boden, J., & Fergusson, D. (2011). Alcohol and depression. *Addiction* , 106(5):906–14. .

Boschloo, L., Vogelzangs, N., Smit, J., van den Brink, W., Veltman, D., Beekman, A., & Penninx, B. (2011). Comorbidity and risk indicators for alcohol use disorders among persons with anxiety and/or depressive disorders: findings from the Netherlands Study of Depression and Anxiety (NESDA). *Journal of Affective Disorders*, 131(1–3):233–42.

Bradizza, C., Stasiewics, P., & Paas, N. (2006). Relapse to alcohol and drug use among individuals diagnosed with Co-occuring mental health and substance use disorders. *Clinical Psychology Rev*, 26: 162-178.

Chepkwony, J. S., Chelale, E., & Barmao, C. A. (2013). An Investigation Into Prevalence And Factors Contributing To Relapse Among Alcoholics In Selected Rehabilitation CentresIn Nairobi County, Kenya. *International Journal of Innovative Research and Development*, 2(8): 340-347.

Conrad, K., Omulema, B., & Chepchieng, M. (2016). Selected Psychological and Social Factors Contributing to Relapse among Relapsed Alcoholics of Asumbi and Jorgs ark Rehabilitation Centres in Kenya . *International Journal of Humanities and Social Science Invention*, 5(10) : 68-72.

Crum RM, Green KM, Storr CL, et al. Depressed mood in childhood and subsequent alcohol use

through adolescence and young adulthood. Arch Gen Psychiatry 2008; 65: 702–12.

Darghouth, S., Nakash, O., Miller, A., & Alegría, M. (2012). Assessment of co-occurring depression and substance use in an ethnically diverse patient sample during behavioral health intake interviews. *Drug and alcohol dependence, 125*, S51-S58.

de Matos MB, de Mola CL, Trettim JP, et al. Psychoactive substance abuse and dependence and its association with anxiety disorders: a population-based study of young adults in Brazil. Rev Bras Psiquiatr 2018; 40: 349–53.

Driessen M, Schulte S, Luedecke C, et al. Trauma and PTSD in patients with alcohol, drug, or dual dependence: a multi-center study. Alcohol Clin Exp Res 2008; 32: 481–88

Ferreira-Borges, C., Rehm, J., Dias, S., Babor, T., & Parry, C. (2015). The impact of alcohol consumption on African people in 2012: An analysis of burden of disease. . *Trop. Med. Int. Health.*, 21:52–60. .

Fitzpatrick-Lewis, D., Ganann, R., K. S., Ciliska, D., Kouyoumdjian, F., & Hwang, S. W. (2011). Effectiveness of interventions to improve the health and housing status of homeless people: A rapid systematic review. *BMC Public Health*, 638–642.

Fink DS, Gallaway MS, Tamburrino MB, et al. Onset of alcohol use disorders and comorbid psychiatric disorders in a military cohort: are there critical periods for prevention of alcohol use disorders? Prev Sci 2016; 17: 347–56

Gillis, L., Dickerson, G., & Hanson, J. (2010). Recovery and homeless services: New directions for the field. . *The Open Health Services and Policy Journal.* , 71–79.

Githae, N. E., Sirera, M., & Wasanga, C. (2016). Family Emotional Over Involvement & Relapse Among Inpatient Alcoholics in Nairobi Kenya. *IOSR Journal of Humanities & Social Science*, 21(7) Ver 1 pp. 44-50.

Grelta, C., Scott, C., Foss, M., & Dennis, M. (2008). Gender similarities & differences in the Treatment & Recovery cycle . *Evaluat Rev*, 32: 113- 137.

Gurmeet, S., Dalbir, K., & Harsharan, K. (1984). Presumptive stressful Life Events Scale . *Indian Journal of Psychiatry*, 26(2): 107-114.

Hammerbacher, M., & Lyvers, M. (2006). Factors associated with relapse among clients in Australian substance disorder treatment facilities . *journal Journal of Substance Use*, 11(6).

Hasin DS, Sarvet AL, Meyers JL, et al. Epidemiology of adult DSM-5 major depressive disorder and its specifiers in the United States. JAMA Psychiatry 2018; 75: 336–46

IIgen, M., Mc.Kellan, J., & Tiet, Q. (2005). Abstinence, self Efficacy and Abistence 1 yr after substance use disorder Treatment . *J Consulting Clinical Psychology* , 73: 1175-1180.

Jacob, M. (2020, March 1st). *Alcohol & Depression.*

Kline A, Weiner MD, Ciccone DS, Interian A, St Hill L, Losonczy M. Increased risk of

alcohol dependency in a cohort of national guard troops with PTSD: a longitudinal study. J Psychiatr Res 2014; 50: 18–25

Koob, G., Ahmed, S., Boutrel, B., Chen, S., Kenny, P., Markou, A., . . . Sanna, P. (2004). Neurobiological mechanisms in the transition from drug use to drug dependence. *Neurosci Biobehav Rev*, 27(8):739-749.

Kuria, M. W. (2013). Factors associated with relapse and remission of alcohol dependent persons after community based treatment. *Open Journal of Psychiatry*, 3 (2): Article ID:30670,9 pages.

LaBounty, L., Hatsukami, D., Morgan, S., & Nelson, L. (1992). Relapse among alcoholics with Phobic and Panic symptoms . *Addict Behav*, 17(1):9-15.

Lê, A., Harding, S., Juzytsch, W., Funk, D., & Shaham, Y. (2005). Role of alpha-2 adrenoceptors in stress-induced reinstatement of alcohol seeking and alcohol self-administration in rats. . *Psychopharmacology (Berl).* , 179(2):366-373.

Leach, D., & Kranzler, H. (2013). An Interpersonal Model of Addiction Relapse. *Addict Disord Their Treat"*, , 12(4):183-192.

Logrip, M., & Zorrilla, E. (2012). Stress history Increases Alcohol Intake in Relapse: Relation to Phosphodiesterase 10A. *Addict Biol*, 17(5) : 920-933.

Löwe, B., Wahl, I., Rose, M., Spitzer, C., Glaesmer, H., Wingenfeld, K., . . . Brähler, E. (2010). A 4-item measure of depression and anxiety: validation and standardization of the Patient Health Questionnaire-4 (PHQ-4) in the general population. *J Affect Disord.* , 122(1-2):86-95.

Mahendhree, C. (2011, October 11th). *Causes of Relapse Post Treatment for Substance Dependency Within The South African Police Services.* Retrieved from University of Pretoria.

MAHENDHREE, C. (2011). *Causes of Relapse Post Treatment for Substance dependency within The South African Police Services.* Pretoria; South Africa: University of Pretoria

Melchior M, Prokofyeva E, Younes N, Surkan PJ, Martins SS. Treatment for illegal drug use disorders: the role of comorbid mood and anxiety disorders. BMC Psychiatry 2014; 14: 89..

Mantley, J., Gual, A., Jakubcyzk, A., Pieper, L., Charlotte, P., Pierluigi, S., . . . Jurgen, R. (2016). Alcohol use disorders in Europe: A comparison of general population and primary health care prevalence rates. *Journal of Substance Use*, 478-484.

Mattoo, S., Varma, V., Singh, R., Khurana, H., Kaur, R., & Sharma, S. (2001). Alienation, sensation seeking and multiphasic personality questionnaire profile in men being treated for alcohol and/or opioid dependence. *Indian J Psychiatry*, 43(4):317-26.

Nagaich, N., Radha, S., & Neeraj, G. (2016). Fcators affecting remission and relapse in alcohol dependence can they really predict? *J Liver Res Disorder Ther* , 2(3): 78-81.

Nele, G., Anja, K., Mignon, T., Chantal, N., & Remco, C. H. (2016). How patients perceive the relationship between trauma, substance abuse, craving, and relapse . *A qualitative study, Journal of Substance Use*, 21:5, 466-470.

Office of Applied Studies. (2007). *National survey on drug use and health (NSDUH)'s report: Co-occurring major depressive episode (MDE) and alcohol use disorder among adults.* Substance Abuse and Mental Health Services Administration, Rockville.

Ouimette, P. C., Brown, P. J., & Najavits, L. M. (1998). Course and treatment of patients with both substance use and posttraumatic stress disorders. *Addictive Behaviors, 23*(6), 785-795.

PRABHUSWAMI, H., Vaishali, M., Prakash, N., & Mahesh, C. (2015). Factors affecting alcohol relapse among alcoholic clients at Tertiary Care Hospital . *Indian Journal of Applied Research*, 5(6) : 784-786.

SAMHA. (2010). *Results from the 2010 National Survey on Drug Use and Health: Summary of National Findings. U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration Center for Behavioral Health Statistics and Quality;* . U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services.

SAMHSA. (2019, December 12th). *Alcohol Use Disorder in Past Year among Persons Aged 12 or Older, by Age Group and Demographic Characteristics: Numbers in Thousands, 2017 and 2018.*

Satre, D., Mertens, J., Areans, P., & Weisner, C. (2004). 5yr alcohol & drug treatment outcomes of older adult versus middle aged & younger adults in a managed care program . *Addiction*, 99: 1286-1297.

Sellman, J. D., & Peter, R. J. (1996). Does depression predict relapse in the 6 months following treatment for men with alcohol dependence? *Autsralian and New Zealand Journal of Psychiatry,*, 30:5, 573-578.

Smith SM, Goldstein RB, Grant BF. The association between post-traumatic stress disorder

and lifetime DSM-5 psychiatric disorders among veterans: data from the National Epidemiologic Survey on Alcohol and Related Conditions-III (NESARC-III). J Psychiatr Res 2016; 82: 16–22

Sorensen T, Jespersen HSR, Vinberg M, Becker U, Ekholm O, Fink-Jensen A. Substance use

among Danish psychiatric patients: a cross-sectional study. Nord J Psychiatry 2018; 72: 130–16

Sureshkumar, K., Kailash, S., Dalal, P. K., Reddy, M. M., & Sinha, P. K. (2017). Psychosocial Factors Associated with Relapse in Patients with Alcohol Dependence. *Indian journal of psychological medicine*, 39(3), 312–315. .

Ulrike, W., Elisabeth, L., Kurt, H., Gabriele, F., Georg, S., Harald, N. A., & Kurt, M. (2002). Anxiety As A Predictor Of Relapse In Detoxified Alcohol-Dependent Patients. *Alcohol and Alcoholism* , 37(6): 609-612.

WHO. (2014). *World Health Organization. Global Status Report on Alcohol and Health—2014.* Geneva, Switzerland: World Health Organization.

WHO. (2018). *Global status report on alcohol and health 2018.* Geneva: World Health Organization.

Widom, C., White, H., & Czaja, S. (2007). Long-term effects of child abuse and neglect on alcohol use and excessive drinking in middle adulthood. *J Stud Alcohol Drugs*, 68:317–326.

Wim Van den, B., Nicolien, K., Jolanda, S. J., & Hermes, R. M. (2015). Social factors and readmission after inpatient detoxification in older alcohol-dependent patients. *American journal of addiction*, 24 (7) : 661-666.

Zarkin, G., Bray, J., Aldridge, A., Mills, M., Cisler, R., Couper, D., . . . O'Malley, S. (2010). The effect of alcohol treatment on social costs of alcohol dependence: results from the COMBINE study. . *Med Care*, 48(5):396–401.

Zimet, G., Dahlem, N., Zimet, S., & Farley, G. (1988). The Multidimensional Scale of Perceived Social Support. . *Journal of Personality Assessment* , 52:30-41.

APPENDICES

APPENDIX 1: Budget

Activities	Total cost per Activity
Proposal Writing-Sourcing for Material & Books. This includes purchasing of stationery ,food and transport	5,000/=
KNH/ERC fees	2,000/=
Sampling of participants and Piloting of Data Collection Instrument	15,000/=
Printing and Photocopying of tools (Questionnaires) 10,000/=	10,000/=
Data Collection	30,000/=
Data Entry and Analysis	30,000/=
Presentation of the research project for approval including Printing & Photocopying	6,000/=
Miscellaneous Expenses e.g. phone credits	3,000/=
Total	101,000/=

APPENDIX 2: Study Time Lines

Activities	**January 2021**	**Feb-March 2021**	**April-May 2021**	**June-July 2021**
Proposal Writing	√			
Presentation of the Proposal for Approval				
Ethics Approval		√		
Data collection			√	
Data Analysis			√	
Presentation of research project for approval				√
Finalizing project for presentation				√

APPENDIX 3: Informed Consent Explanation
INTRODUCTION:

My name is Peter Owuor Onyango, a Master of Science Student in Clinical Psychology at the University of Nairobi, Psychiatry department. I would like to tell you about a medical research study being conducted by the researcher named above.

The purpose of this consent form is to give you the information you will need to help you decide whether to be a participant in the study.

When we have answered all your questions to your satisfaction, you may decide to be in the study or not. Once you understand and agree to be in the study, you will be request to sign your name on the consent form. You should understand the general principles, which apply to all participants in a medical research before agreeing to be part of the study.

> 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.

PURPOSE OF THE STUDY: To determine the association between Affective Disorders and prevalence of relapse among patients with alcohol use disorders in rehabilitations in Kiambu County -Kenya

FLOW OF RECRUITMENT: There will be approximately 213 participants in this study randomly chosen. This involves eligible adult patients that have been receiving treatment for Alcohol use disorder and have relapsed.

Involvement in the research will be voluntary and not being a participant ill not deter you from getting served and cared for at the institution in any way. Eligibility includes being 18yrs and above, agreeing to consent, being a patient who is registered to receiving care and treatment at the center and being able to comprehend and communicate in English or Swahili. Those who cannot read or write will be read for

the questions in the questionnaire by the researcher and the response given will placed as answers accordingly.

Being involved in the entire activity of consenting, completing the questionnaires and screening tests will take approximately 60 minutes for each participant, to avoid exhaustion, participants will be given 15 minutes break after first 30 minutes. Results of the study will be shared through individual counselors from each rehabilitation site.

BENEFITS: Early identification of psychiatric conditions as independent variables in this study will help improve medication adherence and will have added advantage of psychotherapeutic approaches through referral. There will also be the pride of being part of a team that strives to help improve mental health care to benefit society.

RISKS: Potential risk will arise on emotional and psychological disturbance that may be evoked by the nature of the questions. However, the researcher being a professional psychologist will be able normalize the reactions in such an instance and refer extremely distressed participants through the directors of specific rehabilitation for further care and management.

CONFIDENTILITY AND PRIVACY:

Coding and serial numbers will be used to ensure the anonymity of the participants; the researcher who will be able to link the data to the individual participant will only know these. Anonymous data will be share with the University of Nairobi and the rehabilitation centres. Hard copy data will be stored in a lock and key cabinet where inly the researcher will have the access to it. Soft copy data will be stored under a password that only the researcher will be aware of.

WILL BEING IN THIS STUDY COST YOU ANYTHING?

There will be no financial cost to you as the data collection will be carried out while in session.

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

As indicated above, you will not spend any money to take part in this study. Hence, there will be no compensation.

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 researcher at the number provided at the bottom of this page. For more information about your rights as a research participant you may contact the following:

KENYATTA NATIONAL HOSPITAL-UNIVERSITY OF NAIROBI ETHICS AND RESEARCH COMMITTEE
SECRETARY/ CHAIRPERSON,
Telephone No. 2726300 Ext. 44102,
Email uonknh_erc@uonbi.ac.ke.

PRINCIPAL INVESTIGATOR (RESEACHER)
Owuor Peter Onyango
University of Nairobi
Telephone No. 0728 687464
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SUPERVISORS
Dr. Lincoln Khasakhala
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University of Nairobi

Telephone No. 0722245177

Dr. Ann Mbwayo

Lecturer

Department of Psychiatry

School of Medicine- College of Health Sciences

University of Nairobi

Telephone No. 0733823896

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 the researcher. 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. By signing this consent form, I have not given up any of the legal rights that I have as a participant in a research study.

I agree to participate in this research study: Yes   No

I agree to have the questionnaire preserved for later study: Yes   No

        Participant printed name:_____

        Participant signature: _____

        Participant witness signature: _____

        Date: _____

Researcher's statement

I, the undersigned, have fully explained the relevant details of this research study to the participant named above and believe that the participant has understood and has willingly and freely given his/ her consent.

        Researcher's Name: Peter Owuor

        Date: _____

        Signature _____

        Role in the study: Principle Investigator

APPENDIX 4: English Version Questionnaires

SOCIO-DEMOGRAPHIC QUESTIONNAIRE

Respondent code…………………. Date………………
Instructions: *Please Tick one answer*

1. Age……………(yr)

2. Gender?

   a. Male

   b. Female

3. What is your marital status?

   a. Single, never married

   b. Married or domestic partnership

4. Level of Education………………………………

5. Religion…………………………………………….

6. How many children do you have?...

7. Where do you live?………....................................

   a. Hostels

   b. At home

   c. With friends

   d. With relatives

   e. Alone

   f. No home

8. Estimated self/Family income……………………………………. (Kshs

9. Any history of Mental Illness?.. (Yes/No).

10. Any Diagnosis of Affective Disorder?...(Yes/No)

11. Any Family history of Alcohol or substance use?.................................(Yes/No).

12. Please specify who…………………………………………

13. When did you start taking alcohol?...

14. How many times have you relapsed? …………………………….

15. What influenced you to begin using?...

16. Any exposure of parents using Alcohol and Drugs……………if Yes

    Expound………………………………………………………

17. Any sort of violence from the parents during your child hood………if Yes

    Expound………………………………………………………

18. Any exposure to abuse as a child? ………………………… (Yes /No)

19. If yes, please expound………………………………………

20. Noted reason for relapses…………………………………

    ………………………………………………………………………

Modified AUDIT) Questionnaire

(Use "✓" to indicate your answer

Questions	Scoring system					Your score
	0	**1**	**2**	**3**	**4**	
How often do you have a drink containing alcohol?	Never	Monthly or less	2 - 4 times per month	2 - 3 times per week	4+ times per week	
How many units of alcohol do you drink on a typical day when you are drinking?	1 -2	3 - 4	5 - 6	7 - 9	10+	
How often have you had 6 or more units if female, or 8 or more if male, on a single occasion in the last three months?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
How often during the last three months have you found that you were not able to stop drinking once you had started?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
How often during the last three months have you failed to do what was normally expected from you because of your drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
How often during the last three have you needed an alcoholic drink in the morning to get yourself going after a heavy drinking session?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
How often during the last three months have you had a feeling of guilt or remorse after drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
How often during the last thre monthsr have you been unable to remember what happened the night before because you had been drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
Have you or somebody else been injured as a result of your drinking?	No		Yes, but not in the last year		Yes, during the last year	
Has a relative or friend, doctor or other health worker been concerned about your drinking or suggested that you cut down?	No		Yes, but not in the last year		Yes, during the last year	
SCORE =						

Patient Health Questionnaire -9 (PHQ-9) Depression

(Use "✓" to indicate your answer

	Over the last 2 weeks, how often have you been bothered by any of the following problems?	Not all	Several days	More than half the days	Nearly Everyday
1.	Little interest or pleasure in doing things…...…………	0	1	2	3
2.	Feeling down, depressed, or hopeless………..……	0	1	2	3
3	Trouble falling or staying asleep, or sleeping too much……………………….	0	1	2	3
4	Feeling tired or having little energy…...……..………	0	1	2	3
5	Poor appetite or overeating..................……….……	0	1	2	3
6	Feeling bad about yourself — or that you are a failure or have let yourself or your family down……………………..	0	1	2	3
7	Trouble concentrating on things, such as reading the newspaper or watching television……….	0	1	2	3
8	Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving .around a lot more than usual……………	0	1	2	3
9	Thoughts that you would be better off dead or of hurting yourself in some way……………	0	1	2	3
	Column totals				
	Total scores				

Mood Disorder Questionnaire

Instructions (Use "✓" to indicate your answer that best applies to you)

1. Has there ever been a period of time when you were not your usual self and... (assessment of BMDs)	Yes	No
...you felt so good or so hyper that other people thought you were not your normal self or you were so hyper that you got into trouble?		
...you were so irritable that you shouted at people or started fights or arguments?		
...you felt much more self-confident than usual?		
...you got much less sleep than usual and found you didn't really miss it?		
...you were much more talkative or spoke much faster than usual?		
...thoughts raced through your head or you couldn't slow your mind down?		
...you were so easily distracted by things around you that you had trouble concentrating or staying on track?		
...you had much more energy than usual?		
...you were much more active or did many more things than usual?		
...you were much more social or outgoing than usual, for example, you telephoned friends in the middle of the night?		
...you were much more interested in sex than usual?		
...you did things that were unusual for you or that other people might have thought were excessive, foolish, or risky?		
...spending money got you or your family into trouble?		
2. If you checked YES to more than one of the above, have several of these ever happened during the same period of time?		

3. **How much of a problem did any of these cause you – like being unable to work; having family, money or legal troubles; getting into arguments or fights? Please circle one response only.**
   a) *No problem*
   b) *Minor Problem*
   c) *Moderate Problem*
   d) *Serious Problem*

4. Have any of your blood relatives (i.e. children, siblings, parents, grandparents, aunts, uncles) had manic-depressive illness or bipolar disorder?

    a) Yes
    b) No

5. Has a health professional ever told you that you have manic-depressive illness or bipolar disorder?

    c) Yes
    d) No

Total Score ……………………………………………..

PTSD Check list

(Use "✓" to indicate your answer)

Instructions: *Below is a list of problems that people sometimes have in response to a very stressful experience. Please read each problem carefully and then circle one of the numbers to the right to indicate how much you have been bothered by that problem* <u>*in the past month*</u>

In the past month, how often have you been bothered by any of the following problems?	Not all	A little bit	Moderately	Quite a bit	Extremely
1. Repeated, disturbing, and unwanted memories of the stressful experience?	0	1	2	3	4
2. Repeated, disturbing dreams of the stressful experience?	0	1	2	3	4
3 Suddenly feeling or acting as if the stressful experience were actually happening again (as if you were actually back there reliving it)?	0	1	2	3	4
4 Feeling very upset when something reminded you of the stressful experience?	0	1	2	3	4
5 Having strong physical reactions when something reminded you of the stressful experience (for example, heart pounding, trouble breathing, sweating)?	0	1	2	3	4
6 Avoiding memories, thoughts, or feelings related to the stressful experience?	0	1	2	3	4
7 Avoiding external reminders of the stressful experience (for example, people, places, conversations, activities, objects, or situations)?	0	1	2	3	4
8 Trouble remembering important parts of the stressful experience?	0	1	2	3	4
9 Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)?	0	1	2	3	4
10 Blaming yourself or someone else for the stressful experience or what happened after it?	0	1	2	3	4
11 Having strong negative feelings such as fear, horror, anger, guilt, or shame?	0	1	2	3	4
12 Loss of interest in activities that you used to enjoy?	0	1	2	3	4
13 Feeling distant or cut off from other people?	0	1	2	3	4

14	Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)?	0	1	2	3	4
15	Irritable behaviour, angry outbursts, or acting aggressively?	0	1	2	3	4
16	Taking too many risks or doing things that could cause you harm?	0	1	2	3	4
17	Being "superalert" or watchful or on guard?	0	1	2	3	4
18	Feeling jumpy or easily startled?	0	1	2	3	4
19	Having difficulty concentrating?	0	1	2	3	4
20	Trouble falling or staying asleep?	0	1	2	3	4

Total Score …………………………………………..

APPENDIX 5: Swahili Version Questionnaires
SEHEMU YA KWANZA 1: Informed Consent (Kiswahili Version)

UTANGULIZI

Jina langu ni Peter Owuor Onyango, mwalimu wa Sayansi katika Kliniki Saikolojia ya katika Chuo Kikuu cha Nairobi, idara ya Psychiatry. Ningependa kukuambia juu ya utafiti wa matibabu ambao unafanya na mtafiti aliyetajwa hapo juu.

Madhumuni ya fomu hii ya idhini ni kujua kama utashirika au la katika somo hili.

Wakati maswali yako yote yamejibiwa na ukaridhika, , unaweza kuamua kuwa kwenye somo au la. Mara tu utakapoelewa na kukubali kuwa katika utafiti huu, utapiga saini jina lako kwenye fomu ya idhini. Unapaswa kuelewa kanuni za jumla zinazotumika kwa washiriki wote katika utafiti wa matibabu huu kabla ya kukubali kuwa katika somo.

i)   Uamuzi wako wa kushiriki ni kwa hiari yako.

ii)   Unaweza kujiondoa kutoka kwa masomo wakati wowote bila kutoa sababu ya kujiondoa kwako

iii)   Kukataa kushiriki katika utafiti hautaathiri huduma unayopata kutoka kituo hiki cha afya au kituo kingine. Tutakupa nakala ya fomu hii uweke kama rekodi yako.

MALENGO YA STADI: Kutafuta uhusiano kati ya shida za kiakili zinazowakabili wanao shida ya unywaji pombe kwa kusababisha kuongezeka kwa shida ya unywaji pombe katika vituo vya marekebisho katika Kaunti ya Kiambu -Kenya

UWEZO WA KUMBUKA: Kutakuwa na washiriki takriban 161 katika utafiti huu waliochaguliwa kwa nasibu. Hii inajumuisha wagonjwa wazima ambao wamekuwa wakipokea matibabu ya shida ya matumizi ya Pombe na wamerejea tena kupata matibabu. Kujihusisha na utafiti huu itakuwa ya hiari na kutokushiriki kwa mshiriki sio cha kufanya kukosa kupata huduma na kutunzwa katika taasisi alipo kwa njia yoyote. Ili kushirika katika somo, lazima mtu awe na miaka 18 na zaidi, akubali ridhaa, awe mgonjwa ambaye amesajiliwa kupokea huduma na matibabu katika kituo hicho na kuweza kuelewa na kuwasiliana kwa lugha ya Kiingereza au Kiswahili. Wale ambao hawawezi kusoma au kuandika watasomewa maswali kwenye dodoso na mtafiti na majibu yatakayo tolewa yatawekwa kama majibu ipasavyo.

Utafiti utadumu takriban dakika 20. Maoni juu ya matokeo yatatolewa kwa kila mgonjwa katika ombi lake wakati wa ziara zake zitakazofuata za matibabu na utunzaji.

MANUFAA: Habari ambayo utatoa itakuwa mchango wa maarifa kwa utafiti katika kuelewa mienendo ya kurudia utumiaji wa pombe vibaya baada ya utunzi. Zaidi ya hapo, mshiriki ataweza kubaini na kutambua kiwango chake cha matumizi ya pombe na muhimu zaidi kuelewa kwanini anarudi kutumia pombe kwa njia isio halali hata baada ya matibabu.

ATHARI ZAIDI: Hatari inayoweza kutokea ya kisaikolojia amabayo inaweza kusababishwa na maulizo ya maswali ambayo inaweza mtu kukosa kutulia ki saikolojia. Walakini, mtafiti ni mtaalam wa saikolojia kwa hivyo, ataweza kutoa msaada wa kwanza wa Saikolojia kabla ya kutuma aliyeadhaika kwa matibabu ya ju zaidi ya utunzi katika kituo hicho au kingine cha karibu.

KUTEMBELEA NA KUTEMBELEA: Mshiriki yeyote atapata nambari ya siri katika dodoso lake ili kuhakikisha kutojulikana kwake. Data isiyojulikana itapewa Chuo Kikuu cha Nairobi na vituo vya ukarabati. Takwimu ya nakala itahifadhiwa kwenye kabati yenye kufuli na ufunguo ambayo mtafiti pekee ndiye anayeweza kufikia. Data ya kompyuta itahifadhiwa na mhuri wa siri kwenye kompyuta ambayo mtafiti pekee ndio atakayejua.

KUWA KWENYE SOMO HILI KITAKUGARIMU HELA YOYOTE?

Hakutakuwa na gharama ya kifedha kwa mshiriki kwani ukusanyaji wa data utafanywa wakati wa utunzi wa kila mmoja.

JE, UTAPATA FIDIA YOYOTE KWA KUSHIRIKA KATIKA SOMO HILI?

hakutakuwa na fidia yoyote

NINI KITAFANYIKA UKIWA NA MASWALI ZAIDI?

Ikiwa una maswali zaidi au wasiwasi juu ya kushiriki katika utafiti huu, tafadhali piga simu au tuma ujumbe kwa mtafiti kwa nambari iliyotolewa chini ya ukurasa huu. Kwa habari zaidi juu ya haki zako kama mshiriki wa utafiti huu unaweza kuwasiliana na wafuatao:

HOSPITALI YA KITAIFA YA KENYATTA – CHUO KIKUU CHA NAIRBI KAMATI YA MADILI NA UTAFITI
MWENYEKITI,
Namba ya simu   2726300 Ext. 44102,
Barua pepe   uonknh_erc@uonbi.ac.ke.

MTAFITI MKUU

Peter Owuor

Chuo Kikuu cha Nairobi

 Namba y simu 0728 687464

Barua pepe: peteraiu2015@gmail.com

WASIMAMIZI

Dk. Lincoln Khasakhala

Mhadhiri

Idara ya Saikolojia

Shule ya Tiba- Chuo cha Sayansi ya Afya

Chuo Kikuu cha Nairobi

Namba ya simu 0722860485

Dk James Mburu

Mhadhiri

Idara ya Saikolojia

Shule ya Tiba-Chuo cha Sayansi ya Afya

Chuo Kikuu cha Nairobi

 Namba ya simu 0722245177

Dk Ann Mbwayo

Mhadhiri

Idara ya Saikolojia

Shule ya Tiba- Chuo cha Sayansi ya Afya

Chuo Kikuu cha Nairobi

 Namba ya simu 0733823896

 HABARI ZA USHIRIKI

 Taarifa ya Mshiriki

Nimesoma fomu hii ya idhini. Nimepata nafasi ya kujadili kuhusu utafiti huu na mtafiti mkuu. Maswali yangu yamepata kujibiwa kwa lugha ambayo ninaelewa. Hatari na mazuri yameeleweka ki kamili

Ninakubali kukua katika somo   Ndio   La

Ninakubali majibu yangu kutumika kwa masomo ya baadae   Ndio   La

Jina la mhusika …………………………….
Sahihi ya mhusika……………………………..
Tarehe…………………………………………..

HABARI YA MTAFITI

Nimehakikisha fomu imepitiwa vyema na mshiriki. Nimepata nafasi ya kujadili utafiti huu na mshirikii. Nimepata kuyajibu maswali ya mshiriki kwa lugha ambayo inaeleweka. Hatari na mazuri yameeleweka ki kamili

Jina la mtafiti : Peter Owuor
Tarehi:…………………………………
Sahihi:………………………………
Kazi ya mtafiti kwenye somo: …Mtafiti Mkuu…

SEHEMU YA PILI 2: Socio-demographic Questionnaire (Swahili version)

Nambari ya mshiriki ………………….

Tarehe………………

Maagizo: Tafadhali weka jibu moja

1. Umri …………… (yr)

2. Jinsia?

   a. Mwanaume

   b. Kike

3. Je! Hali yako ya ndoa ni ipi?

   a. Upweke, haujawahi kuoa

   b. Uko kwa ndoa au ushirikiano wa kujipangia kwa kindoa

4. Kiwango cha elimu ……………………………

5. Dini ………………………………………….

6. Una watoto wangapi? ……………………………………… ………

7. Unaishi wapi? ……… …………………………………… ..

   a. Hosteli

   b. Nyumbani

   c. Na marafiki

   d. Na jamaa

   e. Peke yako

   f. Hauna nyumba

8. Mapato yako ya kibinafsi / ya Familia ……………………………………..…………. (Ksh

9. Historia yoyote ya Ugonjwa wa Akili? …………………………………… (Ndio /Hapana).

10. Ugunduzi wowote wa Ugonjwa wa athari ya kiakili? …………………………………… ......(Ndio la)

11. Historia yoyote ya Familia ya ulevi au matumizi ya dawa za kulevya? …………………… (Ndio / Hapana).

12. Tafadhali taja ni nani ………………………………………….

13. Ulianza lini kunywa pombe? …………………………………… ..

14. Umerudia kutumia pombe baada ya utunzi mara ngapi? …………………………………………………………..

15. Ni nini kilichokuchochea kuanza kutumia? ………………………………………. ....

16. Kutunzwa kokote wa wazazi wanaotumia Pombe na Dawa Mbaya………………………………………………...

17. Vurugu za aina yoyote kutoka kwa wazazi wakati wako wa utotoni …………… kama ni ndio eleza zaidi ……………………………

18. Kutunzwa kokote katika unyanyasaji utotoni wako? ………………………… (Ndio/la)

19. Ikiwa ndio, tafadhali fafanua …………………………….

20. Sababu unayofahamu ama inayofahamika ya kusababisha kurudi tena baada ya utunzi……………………………………

SEHEMU YA TATU 3*: AUDIT Screening Tool (Kiswahili Version)*

1. Je, ni mara ngapi una kunywa vinywaji ambayo yana pombe?

     (0) Sija wahi (ruka hadi swali la 9-10)

     (1) Mara Moja Kwa Mwezi Au Hata Mara Chache Zaidi

     (2) Mara Mbili Hadi Mara Nne Kwa Mwezi

     (3) Mara Mbili Hadi Tatu Kwa Wiki

     (4) Mara Nne Au Zaidi Kwa Wiki

2. Ni vinywaji ngapi yanayo pombe ambayo unakunywa kwa kawaida? [Kwa siku moja]

     (0) moja au mbili

     (1) Tatu au Nne

     (2) Tano au sita

     (3) Saba, nane, au tisa

     (4) Kumi au Zaidi

3. Ni mara ngapi unakunywa vinywaji 6 au zaidi ya pombe kwa wakati mmoja?

     (0) Sija wahi

     (1) Mara chache kuliko mara moja kila mwezi

     (2) Kila mwezi

     (3) Kila wiki

     (4) Kila siku au karibu kila siku

4. Ni mara ngapi kwa mwaka uliopita, umejipata kushindwa kusita kunywa pombe kila unapoanza kunywa?

     (0) Sija wahi

     (1) Mara chache kuliko mara moja kila mwezi

     (2) Kila mwezi

     (3) Kila wiki

     (4) Kila siku au karibu kila siku

5. Ni mara ngapi kwa mwaka uliyopita umejipata ukilegea/ ukishindwa kutimiza majukumu yako kwa sababu ya ulevi?

     (0) Sija wahi

     (1) Mara chache kuliko mara moja kila mwezi

     (2) Kila mwezi

     (3) Kila wiki

     (4) Kila siku au karibu kila siku

6. Je, ni mara ngapi kwa mwaka huu uliyopita, umejipata umekosa fahamu ya lolote lilicho fanyika usiku uliyo pita kwa sababu ya ulevi?

    (0) Sija wahi

    (1) Mara chache kuliko mara moja kila mwezi

    (2) Kila mwezi

    (3) Kila wiki

    (4) Kila siku au karibu kila siku

7. Je, ni mara ngapi kwa mwaka huu uliyopita, umejipata ukitamani kunywa pombe asubuhi "kama kifungua macho" iliuweze kuendelea na shughuli zako?

    (0) Sija wahi

    (1) Mara chache kuliko mara moja kila mwezi

    (2) Kila mwezi

    (3) Kila wiki

    (4) Kila siku au karibu kila siku

8. Je, ni mara ngapi kwa mwaka uliyopita, umejipata ukihisi huzuni au kuwa na hisia za mtu aliyefanya hatia baada ya kunywa pombe?

    (0) Sija wahi

    (1) Mara chache kuliko mara moja kila mwezi

    (2) Kila mwezi

    (3) Kila wiki

    (4) Kila siku au karibu kila siku

9. Je wewe au mtu mwingine amewahi pata majeraha kwa sababu yako kunywa pombe?

    (0) hapana

    (2) Ndio, lakini siyo mwaka huu umepita

    (4) Ndio, mwaka huu umepita

10. Je, kuna jamaa yako, rafiki, daktari au muhuduma wa afya mwengine ambaye ameonyesha kushangaa na kukunywa pombe kwako na hata kuhisia kuwa upunguze kunywa pombe?

    (0) hapana

    (2) Ndio, lakini siyo mwaka huu umepita

    (4) Ndio, mwaka huu umepita

**SEHEMU YA NNE 4: Patient Health Questionnaire PHQ(9*)*

(Tumia " ✔ " kuonyesha jibu lako)

Katika wiki mbili zilizopita, mara ngapi umekuwa ukisumbuliwa na shida zozote zifuatazo?

Sio siku hata moja (0)

Siku kadhaa (1)

Zaidi ya nusu ya masiku(2)

Karibu kila siku(3)

1. Riba kidogo/ raha ya kufanya mambo 0 1 2 3

2. Kujisikia chini, unyogovu, au kukosa matumaini. ………..… ……… 0 1 2 3

3. Ugumu wa kuanza kulala, kubaki kama umelala au kulala sana
   ………………………………………………………..………..……0 1 2 3

4. Kuhisi uchovu au kuwa na nguvu kidogo ...... ………….……..… 0 1 2 3

5. Kukosa hamu nzuri ya kula au kuzidisha na kukula sana
   ……………………………………………………………….…0 1 2 3

6. Kujisikia vibaya juu yako mwenyewe - au kwamba wewe ni mshindwa au umekosa
   kujifanikisha au kufanikisha familia yako …………………………… 0 1 2 3

7. Kukosa kuzingatia vitu au kuwa na umakini, kama kusoma gazeti au kutazama
   runinga………………………………………………………………….0 1 2 3

8. Kusonga au kuongea kwa mwendo wa pole na hata watu wengine wangegundua? Au
   kinyume - kuwa wa kukosa kutulia na kusemwa kuwa umekuwa za kuzurura sana
   kushida kiasi ambacho wengine wanakujua.
   ……………………………………………………………….… 0 1 2 3

9. Mawazo ya kwamba ungekuwa bora kufa au kujiumiza mwenyewe kwa njia fulani
   …………………………………………………………………...0 1 2 3

Jumla ya alama …………………………………………………

SEHEMU YA TANO 5: Mood Disorder Questionnaire (Swahili Version)

Maagizo (Tumia " ✔ " kuonyesha jibu lako bora)

1. Je! Kumewahi kuwa na kipindi cha wakati ambapo haukuwa kawaida yako na …..

.. ulijisikia vizuri sana au mhemko kiasi kwamba watu wengine walidhani kuwa sio ubinafsi wako wa kawaida au ulikuwa mjanja sana hata ukaingia kwenye shida?

... ulikasirika sana hata ulipiga kelele kwa watu au kuanza mapigano au mabishano?

... ulihisi kujiamini zaidi kuliko kawaida?

... ulilala kidogo kuliko kawaida na ukagundua haukuhitaji kulala kabisa?

... ulikuwa unaongea zaidi ya kawaida au uliongea haraka kuliko kawaida?

... mawazo yalipitia kichwa chako kwa upesi zaidi au ukawa na shida ya kupunguza mawazo yaliyo akilini ?

... ulivurugika kwa urahisi na vitu vilivyo karibu nawe hivi kwamba ulikuwa na shida ya kukua n umakini au kukaa na kuzingatia mwendo mmoja?

... ulikuwa na nguvu nyingi kuliko kawaida?

... ulifanya kazi sana au ulifanya vitu vingi zaidi kuliko kawaida?

... ulikuwa wa kujumuika na maneno ya jamii zaidi ya kawaida , kwa mfano, ulipigia simu kwa marafiki katikati ya usiku?

... ulivutiwa zaidi na ngono kuliko kawaida?

... ulifanya vitu ambavyo havikuwa vya kawaida kwako au ambavyo watu wengine wangefikiria ulikuwa ni mambo ya kupita kiasi/ kuzidi, wa upumbavu, au wa hatari?

... kutumia pesa zaidi, kukufanya wewe au familia yako kupitia shida?

2. Ikiwa ulijibu NDIYO kwa zaidi ya moja hapo juu, je? Kadhaa ya haya yamewahi kutokea katika kipindi kimoja zikifanyika pamoja?

3. Je! Shida yoyote hii/zozote hizi zilisababisha wewe - kama kukosa kufanya kazi; kuwa na familia, kujipata kwa shida za pesa au kisheria; kuingia kwenye mabishano au mapigano?

a) Hakuna shida

b) Shida Ndogo

c) Shida wastani

d) Shida Kubwa

4. Je! Kuna mtu yeyote wa ndugu yako wa damu (kwa mfano watoto, ndugu, wazazi, babu, shangazi, mjomba) alikuwa na ugonjwa wa kiakili za kukosa matumaini au kuwa na hamu ya vitu zaidi?

a) Ndio

b) Hapana

5. Je! Mtaalamu wa afya amewahi kukuambia kuwa una ugonjwa wa kiakili wa kukosa matumaini au kuwa na hamu ya vitu zaidi?

a) Ndio

d) Hapana

Jumla ya alama ………………………………………………….

\

SEHEMU YA SITA 6: PTSD Checklist (Swahili Version)

(**Tumia "✔" kuonyesha jibu lako**)

Maagizo: Hapo chini kuna orodha ya shida ambazo watu wakati mwingine huwa nazo ili kujibu uzoefu unaosisitiza sana. Tafadhali soma kila shida kwa uangalifu kisha uzungushe nambari moja kwenda kulia kuashiria ni kiasi gani umesumbuliwa na shida hiyo mwezi uliopita

Katika mwezi uliopita, mara ngapi umekuwa ukisumbuliwa na shida zozote zifuatazo?

> La (0)
>
> Kidogo ya nusu ya wakati(1)
>
> Nusu ya wakati (2)
>
> Zaidi ya nusu ya wakati(3)
>
> Sana zaidi kupita nusu ya wakati(4)

1. Kurudiwa, kusumbua, na kumbukumbu zisizohitajika za uzoefu uliofadhaisha?

   0 1 2 3 4………………………………………………….

2. Ndoto zilizorudiwa na kusumbua za uzoefu unaokusumbua?

   0 1 2 3 4…………………………………………………..

3. Ghafla kuhisi au kutenda kana kwamba uzoefu wa kusumbua ulikuwa unaitika tena (kana kwamba kweli ulikuwa huko nyuma ukisimamisha)?

   0 1 2 3 4…………………………………………………..

4. Kuhisi uchungu sana wakati kitu fulani kilikumbusha juu ya uzoefu uliokusumbua?

   0 1 2 3 4………………………………………………….

5. Kuwa na athari kali za mwili wakati kitu kilipokukumbusha uzoefu uliokusumbua (kwa mfano, kupigwa moyo, shida kupumua, jasho)?

   0 1 2 3 4……………………………………………………

6. Kuepuka kumbukumbu, mawazo, au hisia zinazohusiana na uzoefu unaosisitiza?

   0 1 2 3 4…………………………………………………..

7. Kuepuka mawaidha ya nje ya uzoefu unaosisitiza (kwa mfano, watu, mahali, mazungumzo, shughuli, vitu, au hali)?

   0 1 2 3 4…………………………………………………..

8. Shida ya kukumbuka sehemu muhimu za uzoefu unaokusumbua?

   0 1 2 3 4………………………………………………….

9. Kuwa na imani mbaya hasi juu yako mwenyewe, watu wengine, au ulimwengu (kwa mfano, kuwa na mawazo kama hayo

   0 1 2 3 4………………………………………………….

10. Mimi ni mbaya, kuna kitu kibaya sana kwangu, hakuna mtu anayeweza kuaminiwa, dunia ni hatari kabisa)?

    0 1 2 3 4……………………………………………………………

11. 10 Kujisifu mwenyewe au mtu mwingine kwa uzoefu unaokusumbua au nini kilitokea baada yake?

    0 1 2 3 4………………………………………………………..

12. Kuwa na hisia kali hasi kama vile woga, kutisha, hasira, hatia, au aibu?

    0 1 2 3 4………………………………………………………….

13. Kupoteza hamu katika shughuli ambazo ulifurahiya?

    0 1 2 3 4……………………………………………………………

14. Kuhisi kuwa mbali au kukataliwa na watu wengine?

    0 1 2 3 4………………………………………………………..

15. Shida kupata hisia zuri (kwa mfano, kutokuwa na hisia za furaha au kuwa na hisia za upendo kwa watu walio karibu nawe)?

    0 1 2 3 4………………………………………………………..

16. Tabia ya kukasirisha, kufukuza hasira, au kutenda jeuri?

    0 1 2 3 4………………………………………………………..

17. Kuchukua hatari nyingi au kufanya vitu ambavyo vinaweza kukusababisha kudhuru?

    0 1 2 3 4……………………………………………………………

18. Je! Kuwa "kiongozi mkuu" au macho au macho?

    0 1 2 3 4……………………………………………………………

19. Kujisikia kuruka au kutuliza kwa urahisi?

    0 1 2 3 4……………………………………………………………

20. Kuwa na ugumu wa kuzingatia?

    0 1 2 3 4……………………………………………………………

21. Shida ya kuanguka au kulala?