PREVALENCE OF ALCOHOL USE DISORDERS AND DEPRESSION AMONG RECENT INMATES (1 – 12 MONTHS) AT LANG'ATA WOMEN'S PRISON IN NAIROBI

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DECLARATION

I declare that this thesis is my original work and has not been presented for the award of a degree in any other university.

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LIST OF ABBREVIATIONS

1.	AUDIT	-	Alcohol Use Disorders Identification Test.
2.	BDI	-	Becks Depression Inventory.
3.	DSM	-	IV-TR ï Diagnostic and Statistical Manual Version IV Text Revised.
4.	DUI	-	Driving Under the Influence.
5.	GoK	-	Government of Kenya.
6.	ICD-10	-	International Classification of Disease Version Ten.
7.	NACADA	-	National Agency for the Control of Alcohol and Drug Abuse.
8.	KNBS	-	Kenya National Bureau of Statistics.
9.	Kshs	-	Kenya Shillings.
10.	MS	-	MicroSoft.
11.	SPSS	-	Software Package for Statistical Analysis.
12.	WHO	-	World Health Organization.

ABSTRACT

Background: The link between alcohol use disorders, depression and crime is complex and demands keen attention. Alcohol abuse is associated with being both a perpetuator and victim of crime while the link between depression and crime is controversial. The upward trend in female crime parallels a concurrent increase in the prevalence of female substance abuse. Research also confirms a higher prevalence of depression among women. The extent to which gender differences alters the relationship between alcohol use disorders, depression and crime is still unclear.

Objectives: This research sets out to determine the prevalence of alcohol use disorders and depression among female prison inmates incarcerated with the last 12 months. It also determines whether there is an association among alcohol use disorders, depression and crime within the study sample.

Methods: This was a cross sectional study using systematic random sampling technique (n=196).

Data analysis: SPSS version 17.0 was used to analyse data using measures of location and dispersion for continuous variable, and descriptive statistics for discrete variables. Data will be presented on 2 x 2 tables and C x R tables in order to determine associations among substance abuse, depression and crime. (Ŭ=0.05)

Results: Majority of the respondents (58%) were between the ages of 21-30 years and were never married. More than half the respondents had secondary education and above. 82% were either employed or self-employed.66.5% (129) were in jail for non- capital offences mostly acquisitive offences, while 33.5% (65) were in jail for capital offences. 53% (103) were taking alcohol in a harmful way or were dependent on alcohol. 49% met criteria for moderate, severe and extreme depression. There is a significant relationship (p=0.049) between the alcohol use and depression.

Recommendations:

1. Screening of new inmates for depression and alcohol use disorders.
2. This can be complemented by an integrated depression and alcohol use disorder services within the prison system.
3. Psychoeducation about depression and alcohol use disorders as a priority for all incarcerated women.

CHAPTER ONE
INTRODUCTION

1.1 Introduction

Criminology, sociology, and criminal justice literature tend to converge on the idea that there is a vital link between mental illness (particularly depression and drug abuse) and crime. The extent to which the difference between men and women alters these relationships is still unclear[1]. Research literature reveals that men are more involved is criminal activity than women[2]. However, recently there has been an increase in the percentage of female arrests, convictions, and incarcerations noted in the US and several other countries[3].

This parallels a concurrent increase in the prevalence of female substance abuse. The proportion of females among substance abuse treatment clients has increased over the past decade, and female clients currently constitute about one third of the treatment population. Thus, gender is an important factor to consider in substance abuse treatment research as well as how it is affected by substance abuse and depression towards a propensity for criminal behavior[3].

The overall prevalence of mental illness among men and women is about the same, however, some types of disorders are more common in one sex than the other[4]..In a research done by the US Department of Justice, Gender, Mental illness and Crime, findings included:

1. Past year drug use is especially likely to increase crime among women.
2. Depressed individuals commit more crime than non-depressed individuals.
3. Depression is especially a risk factor for women to engage in crime.

In recent decades women have made considerable gains in minor property crime such as larceny, forgery and fraud and in recent years for assaultive crimes and drinking related offences like Driving Under the Influence of drugs (DUI) and liquor law violations[5]. Women are known to self medicate for emotional pain by using substances and substance abuse is strongly associated to crime. With respect to gender differences for specific diagnoses, women have higher rates of depression and anxiety disorder, and are known to self medicate

for emotional pain by using substances, and substances abuse is strongly associated with crime[6].

The dearth of research literature on the relationship among gender, alcohol, depression and crime in Sub-Saharan Africa including Kenya creates a need for research. Unfortunately, the limited literature on how substance abuse and crime is highly skewed in favor of men. This reflects a greater need for research in the female population. This research will therefore, set out to investigate substance abuse, depression, and crime among women by looking at the prevalence of alcohol use disorders and depression among incarcerated women and determine possible associations that may exist.

1.2 Statement of the Problem

The National Agency for the Control of Alcohol and Drug Abuse (NACADA) stated that substance abuse is widespread and is found throughout all social groups and that harmful alcohol use and abuse has emerged as a major hindrance to the health, social and economic development of the people of Kenya. In a nationwide survey NACADA found that lifetime prevalence rate for alcohol use was 39% and prevalence rate for current use of alcohol was 13% for people aged between 15 ï 64 years[7]. The prevalence of common mental disorders in a Kenya study was 10.8 per cent[8].

The links between alcohol and criminal activities are complex, yet studies across the world suggest that alcohol use commonly precedes aggressive behavior, and that harmful drinking is associated with being both a perpetrator and a victim of crime [9]. Depression has been identified as a leading cause of disability worldwide[10]. However, there is controversial evidence in the link between depression and crime, especially as it pertains to women. Thus, there is need to examine the relationship between these variables, crime, depression and alcohol use disorders in inmates (1 ï 12 months) at Langôata Womenôs Prison in Nairobi.

CHAPTER TWO

LITERATURE REVIEW

2.1 Literature Review

What is Depression?

Marcus *et al*[10]point out that depression is a common mental disorder that presents with depressed mood, loss of interest or pleasure, decreased energy, feelings of guilt or low self-worth, disturbed sleep or appetite, and poor concentration. Moreover, depression often comes with symptoms of anxiety. These problems can become chronic or recurrent and lead to substantial impairments in an individualôs ability to take care of his or her everyday responsibilities. At its worst, depression can lead to suicide. Almost 1 million lives are lost yearly due to suicide, which translates to 3000 suicide deaths every day. For every person who completes a suicide, 20 or more may attempt to end his or her life.[11]

Depression affects both men and women, but more women than men are likely to be diagnosed with depression in any given year. Efforts to explain this difference are ongoing, as researchers explore certain factors (for example, biological and social) that are unique to women.

What is Harmful Alcohol Use?

The definition of alcohol use disorders in this study is that of Diagnostic and Statistical Manual IV ï Text Revised (DSM- IV-TR), which categorises alcohol use disorders into two, alcohol abuse, and alcohol dependence. A similar definition can be found in WHOs *International Classification of Diseases, 10th Revision*. World Health Organization[12]defines harmful alcohol use as a pattern of psychoactive substance use that is causing damage to health. The damage may be physical (for example, hepatitis) or mental (for example, depressive episodes secondary to heavy alcohol intake). Harmful use commonly, but not invariably, has adverse social consequences; social consequences in themselves, however, are not sufficient to justify a diagnosis of harmful use.

The concern of this study is with alcohol use disorders ï often termed óalcohol misuseô. Not all óalcohol useô is óalcohol misuseô. As used in this review, óalcohol misuseô refers to any use of alcohol that causes harm to users or to others. Diagnostically, the DSM-

IV[13]categorises two conditions under the umbrella ‘alcohol use disorders’: substance abuse and alcohol dependence (including alcoholism). Though not mutually exclusive, the distinction between the broader use of alcohol misuse and the medical definitions of alcohol-related conditions is important. Harm resulting from excessive alcohol use are not experienced only by those diagnosed as alcohol dependent, often greater harms are experienced among those without a diagnosis[14].

A study by National Institute of Health[15] concedes that alcoholism is the more serious of alcohol use disorders. Consequently, people who are alcoholic often will spend a great deal of their time drinking, making sure they can get alcohol, and recovering from alcohol’s effects, often at the expense of other activities and responsibilities.

Alcohol Use Disorders and Depression among Women

Devane*et al*[16] stipulate that depression can develop in anyone, regardless of race, culture, social class, age, or gender. However, across virtually all cultures and socioeconomic classes, women are more likely than men are to experience depression. Clinical depression affects two to three times as many women as men, both in the in many societies around the world. It is estimated that one out of every eight women will suffer from clinical depression in her lifetime[17]. Studies[18,19]stipulate that there appear to be important links between mood changes and reproductive health events. Gender differences in rates of depression emerge when females enter puberty and remain high throughout the childbearing years and into late middle age. Hormonal factors seem to play a role in some of the mood disturbance experienced by women. In addition, psychosocial factors that may contribute to women’s increased vulnerability to depression include the stress of multiple work and family responsibilities, sexual discrimination, lack of social supports, traumatic life experiences, and poverty. Studies also indicate that sexual and physical abuses are major risk factors for depression[20].

Hankin and Abramson[19] explain that postpartum depression (PPD) is an illness that some women have following the birth of a child. It may occur shortly after childbirth, but may not appear for some months. It is manifested through a range of physical and emotional

symptoms that can vary in severity and intensity. The exact causes of PPD are not clear, but it is likely that hormonal changes due to pregnancy and childbirth, as well as the stresses of having a new baby, contribute to this illness. Kessler *et al*[21] found out that depression often coexists with other serious medical illnesses such as heart disease, stroke, cancer, HIV/AIDS, diabetes, Parkinsonôs disease, thyroid problems and multiple sclerosis, and may even make symptoms of the illness worse. Research has shown that treating the depression along with the coexisting illness will help ease both conditions[22].

One area that has received considerable attention is gender differences in psychiatric co-morbidity. Both epidemiologic studies and studies of treatment-seeking patients indicate that gender differences in the patterns of co-morbid psychiatric disorders in substance users follow the same patterns seen in the general population, with women more likely to meet criteria for anxiety, depression, eating disorders, and borderline personality disorder and men more likely to meet criteria for antisocial personality disorder[23, 24]. However, a number of studies indicate that for women, the onset of the psychiatric disorder is more likely to antedate the onset of the substance use disorder. This suggests gender differences in the relationship between psychiatric and substance use disorders[21].

One study exploring gender differences in the onset of major depression episode (MDE) and alcohol dependence using the Epidemiologic Catchment Area data set found that women with MDE were more than 7 times as likely as women without MDE to have alcohol dependence at a 2-year follow-up point[25]. However, men with MDE were not at any enhanced risk for the development of alcohol dependence.

Converging lines of evidence suggest that a relationship between trauma, posttraumatic stress disorder, and substance use disorders also may be particularly important for women. Early life stress, particularly sexual abuse, is more common in girls than in boys and is associated with a risk of substance use disorders[26]. Women exposed to violence in adulthood also demonstrate a higher risk for drug and alcohol dependence. Moreover, alcohol and drug abuse place women at risk for repeated victimization, thus perpetuating the cycle of victimization and substance use. Animal studies have demonstrated that uncontrollable stress

increases drug self-administration and that neurobiologic correlates of stress appear to mediate this response[27]. Gender differences in the neurobiologic response to stress may be especially important in understanding the relationship between trauma and substance use disorders for women.

Alcohol and substance abuse or dependence may occur at the same time as depression, although more common among men than women. Studies have indicated that between both sexes, the coexistence of mood disorders and substance abuse is common[28, 29]. It's not clear yet whether depression triggers alcohol abuse or vice versa, but it's very likely that they share common triggers. Studies of twins have shown that the same factors that contribute to heavy drinking in families also contribute to the risk for major depression. Studies are finding a strong link between serious alcohol use and depression. The question is, does regular alcohol consumption lead to depression, or are depressed people more likely to drink excessively? Research is divergenton the issue. It's also feasible that depression and alcohol abuse share common genetic or environmental risk factors that trigger both conditions.

Alcohol Use Disorders, Depression and Criminal Activities

Studies[30, 31] evidence that environment where there is a culture of heavy drinking and greater alcohol availability experience higher levels of criminal activities. Globally, 30% of mortality caused by criminal activities is attributable to alcohol, ranging from 8% in the Middle East and North African to 56% in Europe and Central Asia[32.] Studies in several countries suggest alcohol has been consumed by between a third and a half of perpetrators of violence prior to assaults taking place (for example, the united States of America, 35%; South Africa, 44%; England and Wales, 45%; China,50%)[33.]

Studies typically show that males are more likely to drink alcohol, and to be both perpetrators and victims of alcohol-related crime. Importantly, the role of alcohol in aggression extends across many different forms of crime, including youth violence, sexual violence, intimate partner violence, child maltreatment and elderabuse[33]. In addition, most alcoholï related offenses are crimes of violence, such as aggravated assault and homicide[34].

Further, 11% of global suicide mortality is attributed to alcohol, ranging from 2% in the Middle East and North Africa to 31% in Europe and Central Asia[32].

Literature reveals that there have been numerous studies of the rates of mental disorder among offender populations usually focusing on prisoners. Research from the Institute of Psychiatry confirmed that mental disorder is particularly prevalent among prisoners, and substance misuse diagnoses were found in 76% of women prisoners[46]. Some studies concentrate on particular offences with homicide being the favorite, both because of its importance and the high clear up rates which provides a more 'representative sample'[35]. For example, study by Mullen *et al*[36]found out that patient who had a diagnosis of substance abuse as well as a diagnosis of an affective disorder were compared with those without co-morbid substance abuse the relative levels of offending were markedly higher in patients who abused alcohol or drugs. However, they established that care has to be exercised in interpreting this and other studies on offending in affective disorders as they focus exclusively on those admitted to hospital. The vast majority of those with depressive disorders are never admitted and those who are admitted have increased numbers of individuals with social, interpersonal and substance abuse problems.

Most studies on offender populations employ methodologies which evaluate the psychiatric status of subjects during their incarceration or on the basis of pre-trial assessments. Wallace *et al*[37]incontrast used a register which recorded all contact with public mental health services in the State of Victoria in Australia to establish the prior psychiatric histories of 4,156 individuals convicted in the higher courts of that state between 1993 and 1995. Over 25% of these offenders had had prior contact with the mental health services. Interestingly the largest group of such contacts (11.8%) was those who had had only brief contact with services usually whilst in crisis and had either received no formal diagnosis or that of situational stress. The next biggest group was those who had received a primary diagnosis of substance abuse (7%).

The psychiatric register recorded in addition to the primary diagnosis associated disorders including substance abuse. A recorded co-morbid substance diagnosis was strongly associated with offending.

Studies which ascertain both offending and mental health status on random community samples are formidable undertakings. Swanson *et al*[38,39]analyzed data on over 10,000 subjects from the Epidemiological Catchment Area Study which set out to establish the mental health status of the America population. Violent behaviour was ascertained by probes establishing self reports of assaultive behavior. In the previous year violent acts were reported by 2.4% of the non disordered population. This rose to 11% in major depression. Substance abuse as a primary diagnosis was associated with a rate of acknowledged assault of 25%. Those with major mental disorders who were also substance abusers accounted for much of the violence in the mentally disordered.

Hodgins*et al*[40,41]and Brennan *et al*[42] have employed birth cohorts followed up over many years to investigate the relationship between having received psychiatric inpatient care and having acquired criminal convictions. These studies have established a strong association between serious mental illness and offending, including violent offending. In the most recent of such studies 358,180 individuals born in Denmark between 1944 and 1947 were followed up using national registers and recording hospitalizations for mental illness and the other of arrest for criminal offences[42]. The study supported the hypothesis that major mental disorders are associated with an increased likelihood of arrest for violence.

Arseneault*et al*[43] in a New Zealand birth cohort study of 961 twenty one year olds studied associations between mental disorders and both self reports and convictions for violence. In those with no psychiatric disorder 22 (3.8%) had evidence of such behaviors in the previous year. The results indicated higher levels among those with any kind of psychiatric disorder (18% O.R. 5.5 95% CI 3.3-9.0).

Soyka[44] concluded his review by noting that there is substantial evidence for substance misuse being a major risk factor for violence and aggression in patients with mental

disorders. A reservation should however be recorded about the too ready assumption that substance abuse causes offending behaviours in the mentally disordered. To a greater or lesser extent substance abuse may reflect, rather than cause, such factors as anomie, impulsivity and fecklessness which contribute to offending. Thus in part it may be that those who tend to offend are also those who tend to abuse drugs and alcohol when available, rather than it always being drug and alcohol abuse which ushers in offending behaviours.

Studies examining the relationship between offending behaviours and mental disorders have focused almost exclusively on determining associations at particular moments in time in specified, and often highly selected, groups. The analysis employed only occasionally progresses beyond the bivariate to the multivariate in which potential confounding variables are entered into the analysis. A recent New Zealand study based on the Dunedin birth cohort (born 1972/73) is one of the few papers to offer an even basic multivariate analysis[40]. In a hierarchical logistic regression they demonstrated greater effects for gender (O.R. 3.0 (95% CI 1.7-5.2) and for the social class of the family of origin during the subjects childhood and adolescents (O.R. 0.6 95% CI 0.5-0.8, where lowest social class was 1and highest 6) than for any mental health variable.

Only properly conducted studies which examine independently the fluctuations in substance abuse and offending can answer this question. This is a question of considerable moment given the increasing emphasis on preventing, or reducing, substance abuse being the royal road to the reduction of all types of offending in the general community as well as the mentally disordered. Evidence of the link between alcohol and violence comes from experimental and observational studies at both the individual and aggregate levels. Studies have not yet answered the fundamental question of whether alcohol is causally related to criminal activities. Given the strong links between alcohol and crime among women in Kenya, measures to reduce the availability and harmful use of alcohol among women are important criminal activities prevention strategies.

2.2 Study Rationale

Substance abuse, depression and criminal offending are social concerns warranting investigation, prevention and appropriate intervention. A nationwide survey conducted by NACADA found out a lifetime prevalence rate for alcohol of 39%and prevalence rate was 13%for people aged between 15 ï 64 years[7,47].

In addition, there is an increase in the percentage of female arrests, convictions and incarcerations, which parallels a concurrent increase in the prevalence of female substance abuse[2]. The proportion of females among substance abuse treatment clients has increased over the past decade, and female clients currently constitute about one third of the treatment population[48]. Furthermore, available research makes it clear that women are more likely to be depressed than men[45]. On one hand there is controversial evidence in the link between depression and crime but on the other hand, substance abuse and crime seem to show a causal relationship[1]. However, substance abuse especially alcoholism has been shown to be associated with depression[46].

In as much as there is considerable information and knowledge about alcohol use disorders, very little is currently known about the association among alcohol use disorders, depression and crime. Although thereôs some evidence for some co-morbidity between these issues, there is a paucity of research examining this, especially as it pertains to gender, and in this case among women in Kenya. A crucial need exists for a comprehensive research on this area of study. Thus, this research seeks to investigate the prevalence of alcohol use disorders and depression among prison inmates and determine whether any association exists between alcohol use disorders, depression and crime. Results of which are critical to inform policy on gender, mental illness and crime.

2.3 Broad Objective

To examine the prevalence of alcohol use disorders and depression among recent inmates (1 ï 12 months) at Langôata Womenôs Prison in Nairobi.

2.4 Specific Objectives

1. To determine the prevalence of alcohol use disorders among recent inmates (1 ï 12 months) at Langôata Womenôs Prison.
2. To determine the prevalence of depression among recent inmates (1 ï 12 months) at Langôata Womenôs Prison.
3. To determine the association between alcohol use disorders and depression among recent inmates (1 ï 12 months) at Langôata Womenôs Prison.
4. To determine the association between nature of offence and alcohol use disorders among recent inmates (1 ï 12 months) at Langôata Womenôs Prison.
5. To determine the association between nature of offence and depression among recent inmates (1 ï 12 months) at Langôata Womenôs Prison.

2.5 Research Questions

1. What is the association between depression and alcohol use disorders among prison inmates at Langôata womenôs prison?
2. What is the association between alcohol use disorders and nature of offence committed among prison inmates at Langôata womenôs prison?

2.6 Hypotheses

H_0 There is no significant association between alcohol use disorders and depression among recent inmates (1 ï 12 months) at Langôata Womenôs Prison.

H_1 There is significant association between alcohol use disorders and depression among recent inmates (1 ï 12 months) at Langôata Womenôs Prison.

H_{01} There is no significant association between nature of offence and alcohol use disorders among recent inmates (1 ï 12 months) at Langôata Womenôs Prison.

H_{11} There is significant association between nature of offence and depression among recent inmates (1 ï 12 months) at Langôata Womenôs Prison.

CHAPTER THREE
METHODS

3.1 Study Design

The study adopted a descriptive cross-sectional study to examine the prevalence of alcohol use disorders and depression amongst recent inmates (1 ï 12 months) at Langôata Womenôs Prison in Nairobi.

3.2 Study Setting

This study was carried out at Langôata Womenôs Prison in Nairobi. It is the largest womenôs correctional facility that holds female offenders from all over Kenya. The total Kenya Prison Population stands at approximately 52,000 with women forming about 5.3% of this population. Female inmates are accommodated at the Langôata Womenôs Prison in Nairobi and its associated institutions countrywide.

3.3 Study Population

The study targeted women in remand or serving prison sentences within the last 12 months of arrest.

3.4 Inclusion and Exclusion Criteria

Inclusion criteria includes:

1. Women who have been incarcerated for less than one year.
2. Women who give written and verbal informed consent.

Exclusion criteria includes:

1. Women who do not give written and verbal informed consent.
2. Mental retardation or impaired decision making capacity. This will be assessed by the researcher, a mental health service nurse and chief prison warden.

3.5 Study Period

The study took a duration of 2 months from the date of approval by the Ethics Board.

Table 3.1 Study Period

Activity	Period (2014)
Proposal presentation	April
Ethics Board approval	June
Data collection	June
Data analysis	July
Report writing and presentation	July
Dissemination of the result	August

3.6 Sample Size Determination

The sample size was determined by adopting Cochranôs[49] standard formula, that is;

$$N = \frac{Z^2 pq}{d^2}$$

N = the minimum sample size (if the target population is greater than 10,000)

Z = the standard normal deviate at the required confidence level 1.96 which corresponds to 95% confidence interval.

p = the proportion of the target population estimated to have characteristics being measured (15%)[50].

q = the proportion of the remaining population calculated by subtracting p from 1 (1-p)

d = the level of statistical significance or degree of freedom which is 0.05

Using a confidence of 95% that corresponds to the normal standard deviate of 1.96 and the minimum error set at 0.05, the calculated required sample size is therefore shown below:

$$\text{Sample size desired} = \frac{1.96^2 \times 0.15 \times 0.85}{0.05^2}$$

N = 196

Therefore, the study will used a sample size of 196 women at Langôata Womenôs Prison in Nairobi.

3.7 Sampling Method

A systematic random sampling was used to select women inmates from Langôata Womenôs Prison. Systematic random sampling was to be based on selection of women inmates at a certain predetermined interval. The researcher obtained authority from the prison administration to access information on the names of all eligible inmates. This enabled the researcher to construct a list where women inmates will be randomly selected.

Sampling interval calculation

$$\text{Sampling interval} = \frac{\text{total number of women inmates at Langôata Womenôs Prison}}{\text{Number of women inmates needed for the sample}}$$

Thus, every n^{th} woman inmate in the sampling frame was selected. If an inmate failed to consent, the next inmate on the list was to be considered. This sequence was applied until the desired sample size of 196 women inmates was achieved.

3.8 Study Instruments

Questionnaire: A questionnaire written in English then translated into Kiswahili was used to collect necessary information from the respondents, including information on demographic data.

AUDIT: The Alcohol Use Disorders Identification Test is a 10-item screening tool. The conceptual domains and item content of the AUDIT, consists of 10 questions about recent alcohol use, alcohol dependence symptoms, and alcohol-related problems. It helps to identify whether the respondent has hazardous (or risky) drinking, harmful drinking, or alcohol dependence. AUDIT score below 8 is the cut off score after screening and scoring 8 and above is considered to be engaging in excessive drinking. In comparison to other screening tests, the AUDIT has been found to perform equally well or at a higher degree of accuracy across a wide variety of criterion measures. A cut-off value of 8 points yielded sensitivities for the AUDIT for various indices of problematic drinking that were generally in the mid 0.90ôs. Specificities across countries and across criteria averaged in the 0.80ôs[51]. AUDIT has been translated into Kiswahili and validated in many countries, including Kenya[52].

Beck's Depression Inventory: Look sat levels of depression**.** The highest possible total for the whole test would be 63 and a persistent score of 17 or above indicates that one may need psychological evaluation. The tool helps to identify levels of depression:

a) 1-10_____These ups and downs are considered normal
b) 11-16_____ Mild mood disturbance
c) 17-20_____Borderline clinical depression
d) 21-30_____Moderate depression
e) 31-40_____Severe depression
f) Over 40_____Extreme depression

Beck's Depression Inventory has shown sensitivities and specificities in the 90% range across various populations, has been translated into Kiswahili, and validated in Kenya[53].

3.9 Recruitment Procedures

This study commenced after approval from the Prisons administration and the KNHRB. The study participants were women incarcerated for less than one year. These participants were invited into the study through records and the assistance of the prison staff. Participants invitation in to study was done via systematic random sampling. Every participant who accepted the invitation was assessed for inclusion and exclusion criteria by the principal investigator who is a psychiatrist in training and a psychologist as well as the chief warden and mental health nurse in the prison.

3.10 Data Collection Procedure

Researcher obtained consent of Prison administration at Langôata Womenôs Prison in Nairobi, and once permission was granted, the researcher informed and educated the prison administration on the aims and objectives of the study. The recruitment process was carried out by the researcher, with the participants assigned numbers. The study was described to them and the consent form read out to them. Only participants who signed the written consent will be interviewed. The stated tools for assessing depression and substance use disorders(BDI and AUDIT) was then applied sequentially on all subjects by the researcher, with clarification where necessary.

3.11 Data Management

The respondents who agreed to participate were given a written and verbal consent. The data obtained was treated privately with no name tag on it. The researcher assured the participants that the study will not cause any physical or psychological harm to the respondents and they will not be exploited in any way, and will be treated with respects and their rights to privacy and confidentiality will be observed through anonymity.

Both the AUDIT and Beck's Depression Inventory tools have been validated in the national language. Emphasis was placed on ensuring study participants fully understand the questions being asked and information obtained was recorded in detail and stored securely for quality assurance purposes.

3.12 Data Analysis

Data was stored into a password protected SPSS Database. Hard copy data forms was stored in lockable cabinets in the researchers office. SPSS version 17.0 was used to analyze data. Descriptive statistics was carried out for discrete variables and continuous variables were summarized using measures of central tendency and dispersion. Prevalence of Depression and Substance Abuse were estimated using simple proportions. The data for substance abuse and depression was presented on a 2x2 table and the odds ratio determined in order to conclude on an association. Chi-square analysis was used to determine association between severity of crime and substance abuse and depression score in an R x C table. A type 1 error of 0.05 was used as the accepted limit of error for a significant result. The questionnaires were destroyed by the researcher after completion of the study.

Below is a dummy 2x2 table representing substance use and depression

Table 3.2 Substance Use and Depression

Variables	Substance use	No Substance use	Total
Depression	A	B	a+b
No depression	C	D	c+d
Total	a+c	b+d	a+b+c+d

Odds Ratio = a/b ÷ c/d

The Beckôs and AUDIT scale was operationalized in to categorical variables. Using chi-square analysis an association between severity of charges vs. severity of depressive symptoms and substance abuse.

3.13 Variables

This study has both dependent and independent variables. The dependent variable is assumed to be affected by the independent variable. Therefore, the dependent variables for this study is pattern of charges, independent variables are depression and alcohol harmful use.

3.14 Potential Risks and Benefits to Study Participants

The potential risk of coercion/duress from the prison authorities was circumvented by the researcher briefing the prison wardens beforehand about the aims and objectives of the study, and that participation/non-participation was completely voluntary, without punishment, penalty or repurcussions. In addition, the same information was provided to the inmates, highlighting that participation/non-participation in the study had no bearing on their prison sentences. In addition, the consent questionnaires were administered by the researcher herself, to minimize the risk of coercion.

The prison nursing officer- in- charge and the welfare officer were enjoined in the above process.

During research, respondents who were found to have psychological or physical problems of which a participant may be aware or unaware, benefited from immediate counseling, advice on treatment/referrals, and were managed by the researcher if needed. In addition, results of the study will be availed to the Research, Statistics and Legal Unit of the Kenya Prison Service whose mandate is to collect, process, analyze, disseminate statistical data relating to Prisons and the Criminal Justice System, as well as initiating and carrying out research on crime, their cause, prevention measures for policy formulation and administrative purposes.

3.15 Study Limitations

Due to the cross-sectional nature of this study, the temporal sequence as to whether alcohol harmful use precede depression and or vice versa could not be determined except in cases where a clear history of disorder or treatment was available. In addition, this study did not consider other confounding/predisposing factors to either the alcohol harmful use or depression. The time frame for this study did not allow for the translation of AUDIT and Beck's Depression Inventory tools into different Kenyan dialects which may influence the sensitivity of the instruments or may discriminate against Kenyan who donot speak English or Swahili. However, the researcher considered that English and Swahili are the two National Languages constitutionally recognized in Kenya. Thus, it is expected that every Kenyan will be able to speak either Swahili or English.

3.16 Ethical Considerations

Ethical approval to conduct the study was sought from the Ethics and Research Committee of University of Nairobi. Written authority and clearance to conduct the study was obtained from the Kenya Prisons Service. Approval from the above mentioned authorities elevated this research to the stage of engagement with prison warden and welfare department on the purpose of the study, risk and benefits and ensuring highest ethical standards for human subject research were obtained. Consultations also focused on identifying any potential barriers and challenges before the commencement of the study to ensure ethical issues that the researcher may not have be aware of were not ignored as well as to generate the necessary support required for the smooth conduct of the research.

Informed and written consent were a prerequisite for absorption into the study and participants were at liberty to opt out of the study at any time during the process without consequences.

In addition, anonymity of research subjects and confidentiality were highly maintained. All information obtained from participants was confidential and only used for the purpose of this study

Permission to carry out this study was granted by Kenya Prison authorities.

3.17 Data Collection Procedure Flow Chart

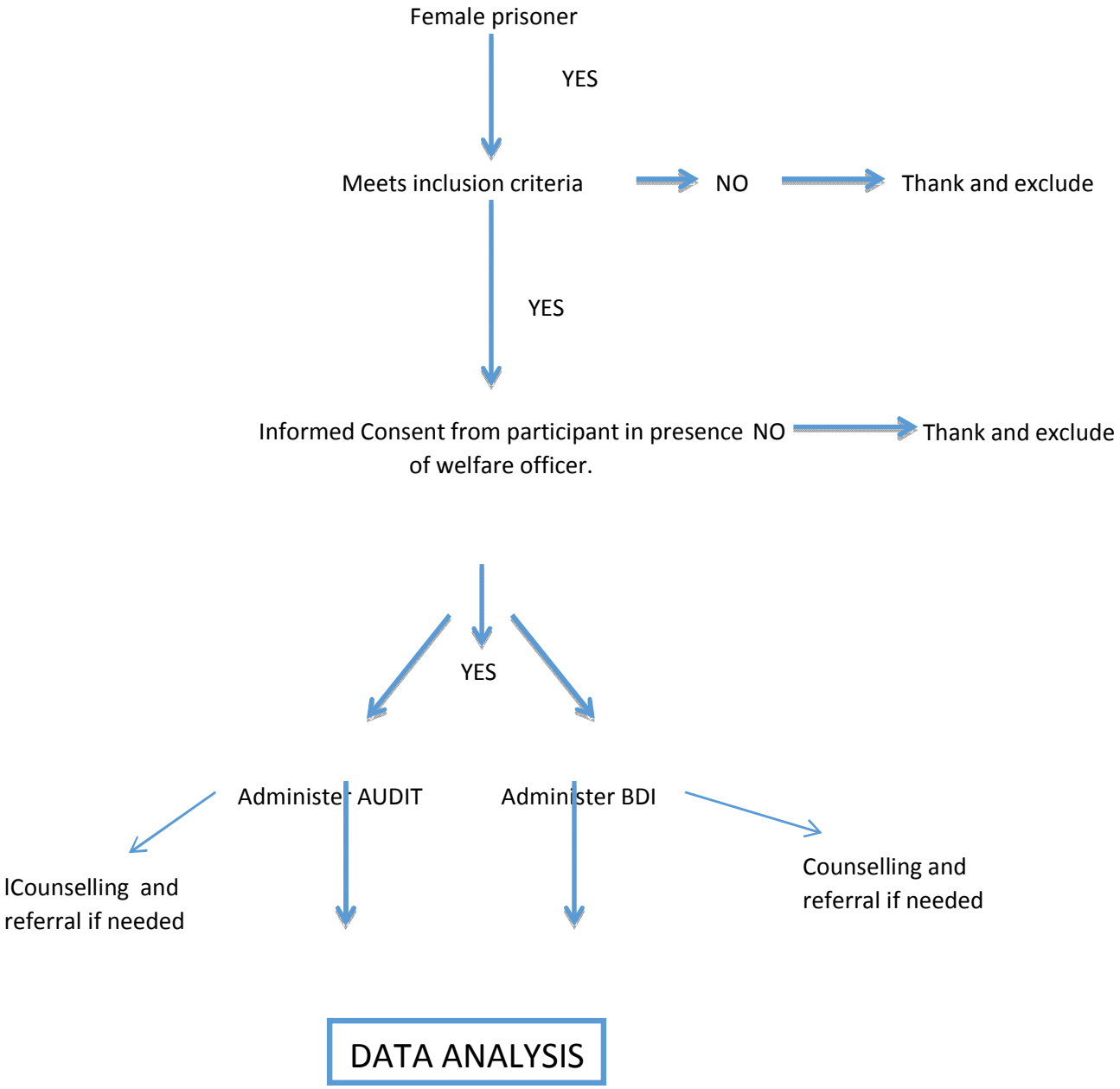


Figure 3.1 Data Collection Procedure Flow Chart

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION

4.1 Introduction

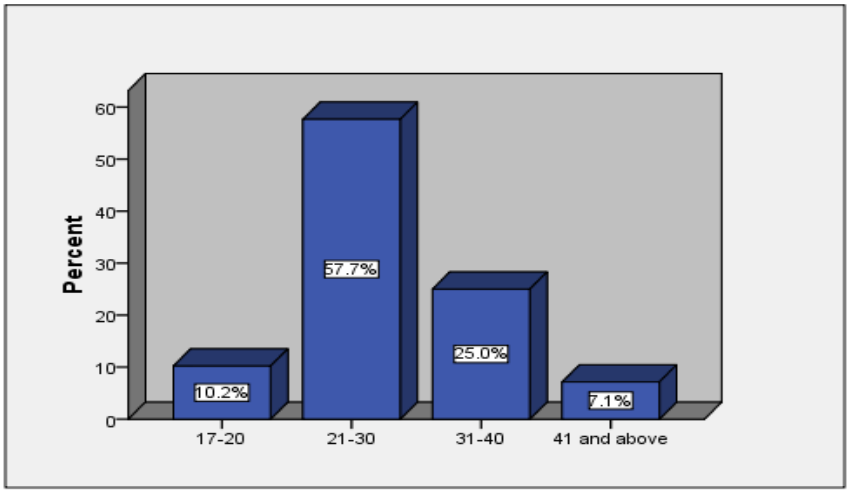
Data was entered and analyzed using SPSS version 17. This chapter is a highlight of the results from the study. The data has been represented in tables as well as bar charts.

4.2 Socio-Demographic Information

Table 1: Age

	N (n)	Percent (%)
17-20	20	10.2
21-30	113	57.7
31-40	49	25
41 and above	14	7.1
Total	196	100

Figure 1: Age

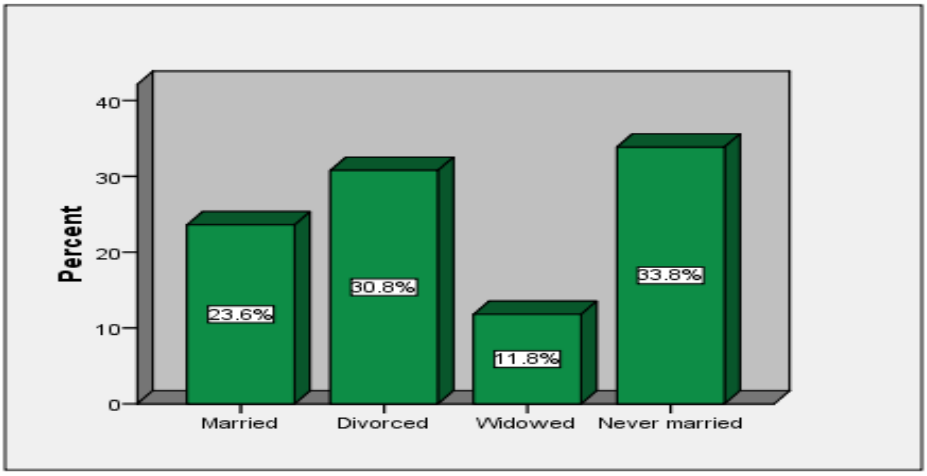


Majority of the respondents 58% (113) were between the ages of 21-30 years, 10% (20) between 17-20 years and 7% (14) were above 41 years.

Table 2: Marital status

		N (n)	Percent (%)
	Married	46	23.6
	Divorced	60	30.8
	Widowed	23	11.8
	Never married	66	33.8
	Total	195	100
Missing	System	1	
Total		196	

Figure 2: Marital status

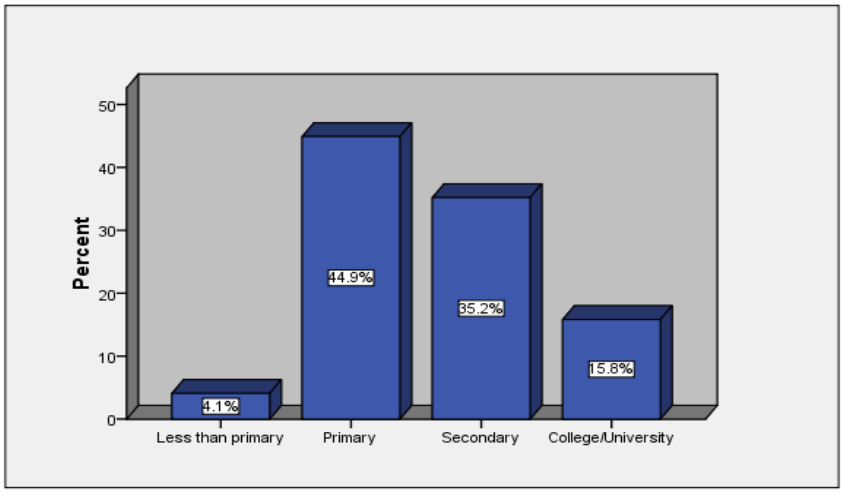


33.8% (66) were never married, 30.8% (60) were divorced, 23.6% (46) were married and 11.8% (23) were widowed.

Table 3: Level of education

	N (n)	Percent (%)
Less than primary	8	4.1
Primary	88	44.9
Secondary	69	35.2
College/University	31	15.8
Total	196	100

Figure 3: Level of education



More than half the respondents 51% (100) had been to secondary and college/ university while 4.1% had education of less than primary education.

Table 4: Can you speak Swahili

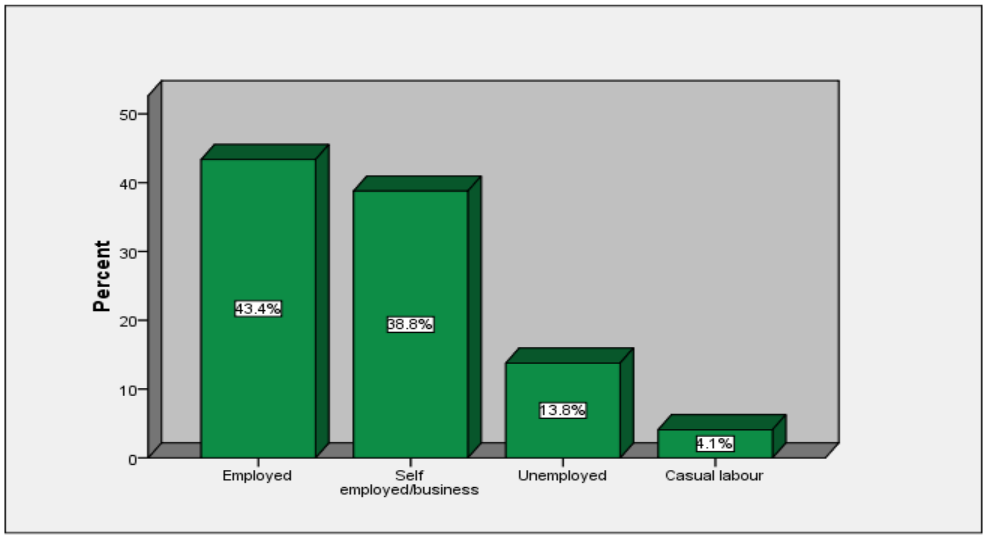
		N (n)	Percent (%)
Valid	No	43	22.2
	Yes	151	77.8
	Total	194	100
Missing		2	
Total		196	

Majority of the respondents 78% (151) could speak Swahili with only 22% (43) who could not speak Swahili

Table 5: Employment status

	N (n)	Percent (%)
Employed	85	43.4
Self employed/business	76	38.8
Unemployed	27	13.8
Casual labour	8	4.1
Total	196	100

Figure 4: Employment status



A total of 82% (161) were either employed or self employed/ business with only 4.1% (8) who were unemployed.

Table 6: Household income

	N (n)	Percent (%)
<11,000	130	66.3
11,000- <21,000	31	15.8
21,000- 31,000	12	6.1
> 31,000	23	11.7
Total	196	100

More than half of the respondents households 66% (130) were earning less than 10,000 Kshs, 16% (31) were earning 11,000- 20,000 Kshs, 112 (23) above 31,000 Kshs and 6% (12) were earning 21,000- 30,000 Kshs.

Table 7: Self income

	N (n)	Percent (%)
<11,000	139	70.9
11,000- <21,000	27	13.8
21,000- 30,000	8	4.1
> 31,000	22	11.2
Total	196	100

As individuals, 71% (139) which is the majority earned less than 10,000, 14% (27) earned 11,000- 20,000, 11% (22) earned above 31,000 and 4% (8) between 21,000- 30,000 Kshs.

Table 8: Nature of offence

		N (n)	Percent (%)
	Capital offence	65	33.5
	Non- capital offence	129	66.5
	Total	194	100
Missing		2	
Total		196	

66.5% (129) were in jail for non- capital offences while 33.5% (65) were in jail for capital offences.

Table 9: Jail sentence

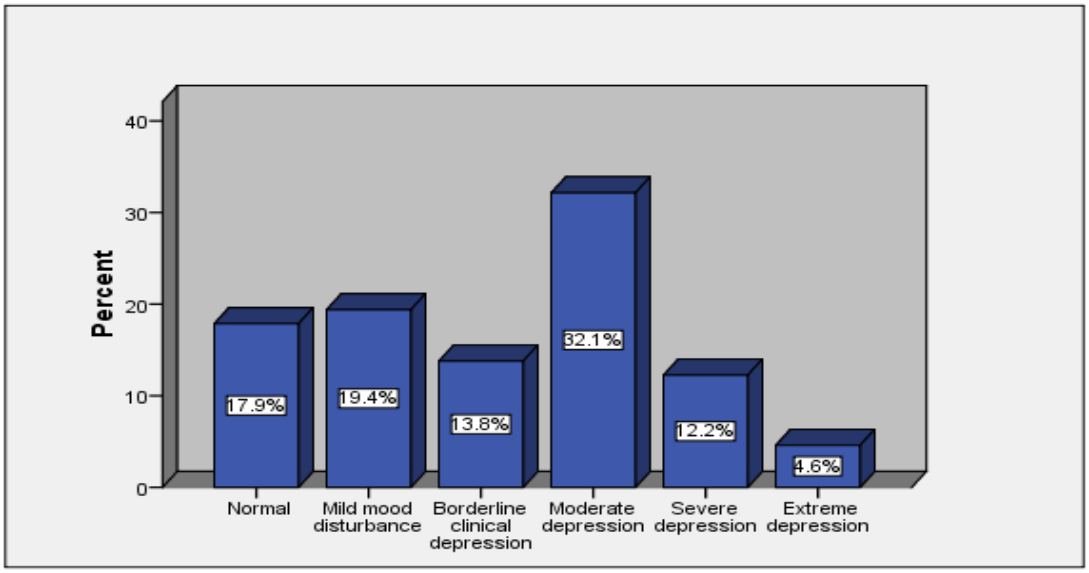
	N (n)	Percent (%)
Remand	47	24
0-2 years	90	45.9
3-5 years	20	10.2
6-15 years	20	10.2
16- life	19	9.7
Total	196	100

60% (90) of the respondents had been sentenced to two years of jail or less, 13% (20) sentenced to 3-5 years and 6- 15 years and 13% (19) were sentenced to above 16 years to life imprisonment.

Table 10: Becks Depression Inventory (BDI)

	N (n)	Percent (%)
Normal	35	17.9
Mild mood disturbance	38	19.4
Borderline clinical depression	27	13.8
Moderate depression	63	32.1
Severe depression	24	12.2
Extreme depression	9	4.6
Total	196	100

Figure 5: Becks Depression Inventory (BDI)

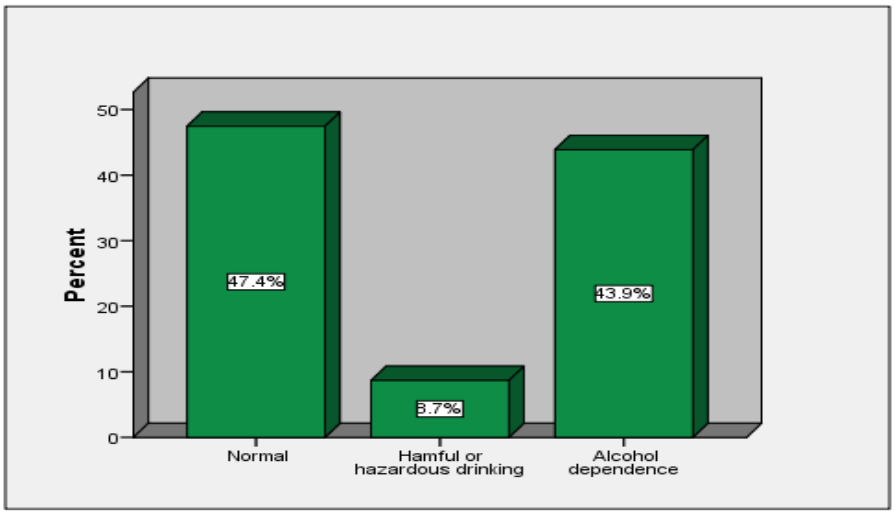


32% (63) were suffering from moderate depression. A total of 17% (33) were suffering from either severe or extreme depression.

Table 11: Alcohol Use Disorders (AUDIT)

	N (n)	Percent (%)
Normal	93	47.4
Harmful or hazardous drinking	17	8.7
Alcohol dependence	86	43.9
Total	196	100

Figure 6: Alcohol Use Disorders (AUDIT)



A total of 52.6% (103) were taking alcohol in a harmful way or were dependant on alcohol.

Table 12: Relationship between Alcohol use and Depression (R by C table)

				Beck's depression					
		Normal	Mild mood disturbance	Borderline clinical depression	Moderate depression	Severe depression	Extreme depression	Total	p
AUDIT	Normal	25	16	12	27	8	5	93	
		26.9%	17.2%	12.9%	29.0%	8.6%	5.4%	100.0%	0.049
	Harmful or hazardous drinking	2	5	4	2	4	0	17	
		11.8%	29.4%	23.5%	11.8%	23.5%	0.0%	100.0%	
	Alcohol dependence	8	17	11	34	12	4	86	
		9.3%	19.8%	12.8%	39.5%	14.0%	4.7%	100.0%	
Total		35	38	27	63	24	9	196	
		17.9%	19.4%	13.8%	32.1%	12.2%	4.6%	100.0%	

There was a significant relationship (p=0.049) between the alcohol use and depression. From the table above, 14% (12) respondents had alcohol dependence and severe depression and

5% (4) who had alcohol dependence and extreme depression. 23.5% (4) had borderline clinical depression and harmful drinking.

Table 13: Relationship between Nature of Offence & Alcohol Disorders

			AUDIT			
		Normal	Harmful or hazardous drinking	Alcohol dependence	Total	p
Nature of offence	Capital offence	20	6	39	65	
		30.8%	9.2%	60.0%	100.0%	0.003
	Non- capital offence	72	11	46	129	
		55.8%	8.5%	35.7%	100.0%	
Total		92	17	85	194	
		47.4%	8.8%	43.8%	100.0%	

There was a significant relationship (p=0.003) between the nature of offence and the level of alcohol use. The prevalence of harmful drinking and alcohol dependence were 8.5% (11) and 36% (46) respectively for prison inmates servicing sentences for non-capital offences.

In comparison to those servicing sentence for capital offences, the proportion of those meeting diagnosis for harmful drinking is lower at 9% (6) but higher for alcohol dependence at 60 % (39). Non capital offences respondents who were in jail for non- capital offences were more likely to be involved in harmful drinking and alcohol dependence, 8.5% (11) and 46 (36%) as opposed to those jailed for capital offence who had 9% (6) and 39 (60%) for harmful drinking and alcohol dependence respectively.

Table 14: Relationship between nature of jail and depression

			Becks depression					
	Normal	Mild mood disturbance	Borderline clinical depression	Moderate depression	Severe depression	Extreme depression	Total	p
Capital offence	2	8	9	36	9	1	65	0.000
	3.1%	12.3%	13.8%	55.4%	13.8%	1.5%	100.0%	
Non-capital offence	33	29	18	27	15	7	129	
	25.6%	22.5%	14.0%	20.9%	11.6%	5.4%	100.0%	
	35	37	27	63	24	8	194	
	18.0%	19.1%	13.9%	32.5%	12.4%	4.1%	100.0%	

There is a strong association between nature of offence and depression symptoms. (p=0.000) where those in jail for non-capital offences were more prone to depression as opposed to those in for capital offences. In case of both severe and extreme depression, those in for non- capital offences had 12% (15) and 5% (7) respectively, as compared to those in capital offence who had 14% (9) for severe depression and 1% (1) for extreme depression. Those in jail for capital offence were more likely to be moderately depressed 55% (36).

Table 15: Multivariate Analysis for Audit Association between Alcohol Disorders and Age

Age							
		17-20	21-30	31-40	41 & above	Total	p
AUDIT	Normal	17	52	19	5	93	0.004
		18%	56%	20%	5%	100%	
	Harmful or hazardous drinking	0	12	2	3	17	
		0%	71%	12%	18%	100%	
	Alcohol dependence	3	49	28	6	86	
		4%	57%	33%	7%	100%	
Total		20	113	49	14	196	
		10%	58%	25%	7%	100%	

There is a significant association between alcohol and age (p=0.004) where respondents between the ages of 21-30 years had the highest scores for harmful drinking and alcohol dependence with 71% (12) and 57% (49) as compared to all other age groups.

Table 16: Association between Alcohol Disorders and Employment Status

Employment status							
		Employed	Self employed/ business	Unemployed	Casual labour	Total	p
AUDIT	Normal	44	21	23	5	93	0.000
		47%	23%	25%	5%	100%	
	Harmful or hazardous drinking	9	7	1	0	17	
		53%	41%	6%	0%	100%	
	Alcohol dependence	32	48	3	3	86	
		37%	56%	4%	4%	100%	
Total		85	76	27	8	196	
		43%	39%	14%	4%	100%	

There is a very significant association between alcohol and employment status (p=0.000) with respondents who are either employed or self-employed having higher scores for harmful drinking and alcohol dependence as compared to those unemployed or in casual labour

Table 17: Association between Alcohol Disorders and Jail Sentence

Nature of sentence					
		Capital offence	Non- capital offence	Total	p
AUDIT	Normal	20	72	92	0.003
		22%	78%	100%	
	Harmful or hazardous drinking	6	11	17	
		35%	65%	100%	
	Alcohol dependence	39	46	85	
		46%	54%	100%	
Total		65	129	194	
		34%	67%	100%	

There is a strong association between alcohol and nature of sentence (p=0.003) with respondents who are imprisoned for non- capital offences being more prone to harmful drinking and alcohol dependence with 65% (11) and 54% (46) respectively.

Table 18: Multivariate Analysis for BDI Association between Depression and Age

			Age				
		17-20	21-30	31-40	41 & above	Total	p
Becks depression	Normal	5	23	6	1	35	0.004
		14%	66%	17%	3%	100%	
	Mild mood disturbance	1	22	9	6	38	
		3%	58%	24%	16%	100%	
	Borderline clinical depression	4	15	6	2	27	
		15%	56%	22%	7%	100%	
	Moderate depression	1	37	23	2	63	
		2%	59%	37%	3%	100%	
	Severe depression	6	14	2	2	24	
		25%	58%	8%	8%	100%	
	Extreme depression	3	2	3	1	9	
		33%	22%	33%	11%	100%	
Total		20	113	49	14	196	
		10%	58%	25%	7%	100%	

There is a significant association between depression and age (p=0.004) where respondents between the ages of 21-30 years had the highest scores on the BDI with 59% (37) meeting criteria for moderate depression and 58% (14) for severe depression as compared to all other age groups.

Table 19: Association between Depression and Employment Status

			Employment status				
		Employed	Self employed/ business	Unemployed	Casual labour	Total	p
Becks depression	Normal	23	8	3	1	35	0.008
		66%	23%	9%	3%	100%	
	Mild mood disturbance	20	13	5	0	38	
		53%	34%	13%	0%	100%	
	Borderline clinical depression	12	9	6	0	27	
		44%	33%	22%	0%	100%	
	Moderate depression	22	32	4	5	63	
		35%	51%	6%	8%	100%	
	Severe depression	5	10	8	1	24	
		21%	42%	33%	4%	100%	
	Extreme depression	3	4	1	1	9	
		33%	44%	11%	11%	100%	
Total		85	76	27	8	196	
		43%	39%	14%	4%	100%	

There is a very significant association between depression and employment status (p=0.008) with respondents who are self employed having higher scores for depression as compared to all other categories.

Table 20: Association between Depression and Nature of Sentence

		Jail categories			
		Capital offence	Non- capital offence	Total	p
Becks depression	Normal	2	33	35	0.000
		6%	94%	100%	
	Mild mood disturbance	8	29	37	
		22%	78%	100%	
	Borderline clinical depression	9	18	27	
		33%	67%	100%	
	Moderate depression	36	27	63	
		57%	43%	100%	
	Severe depression	9	15	24	
		38%	63%	100%	
	Extreme depression	1	7	8	
		13%	88%	100%	
Total		65	129	194	
		34%	67%	100%	

There is a very strong association between depression and nature of sentence (p=0.005) with respondents who are imprisoned for non- capital offences being more prone to depression as show in the table above.

Table 21: Odds Ratio for Alcohol and Depression against Nature of Offence

		Classification Table(a)			
				Predicted	
			BDI		
	Observed		Not depressed	Depressed	Percentage Correct
Step 1	BDI	Not depressed	80	19	80.8
		Depressed	49	46	48.4
	Overall Percentage				64.9
a. The cut value is .500					

The likelihood depression and alcohol use for a person in jail for non-capital offence is three times more than for a person in jail for capital offence (95.0% C.I. 2.08-7.511) significance (p=0.000)

CHAPTER FIVE

RESULTS, DISCUSSION AND RECOMMENDATION

5.1 Results

- Majority of the respondents (58%) were between the ages of 21-30 years and were never married. More than half the respondents had secondary education and above.
- 82% were either employed or self employed/ business with 71% (139) of individuals were earning less than 10,000 Kshs monthly.
- 66.5% (129) were in jail for non- capital offences mostly acquisitive offences i.e theft, fraud, handling stolen property, shoplifting etc, while 33.5% (65) were in jail for capital offences ï homicide, grievous bodily harm, drug trafficking etc.
- 60% (90) of the respondents had been sentenced to two years of jail or less, 13% (20) sentenced to 3-5 years and 6- 15 years and 13% (19) were sentenced to above 16 years to life imprisonment.
- There was a relatively higher intake of alcohol among those in the ages of 21-30 years, those that were self employed or in business and those that earned >10,000 Kshs/month.
- 53% (103) were taking alcohol in a harmful way or were dependent on alcohol.
- 69% of those serving sentences for capital offences were positive for hazardous drinking or dependence while 44% of inmates serving sentences for non capital offences were positive for hazardous drinking or alcohol dependence. This difference was found to be statistically significant (p=0.003).
- There was a significant relationship (p=0.003) between the nature of offence and the level of alcohol use..
- There is a significant relationship (p=0.049). between the alcohol use and depression (chi-square analysis)
- 32% (63) were suffering from moderate depression, and 17% (33) were suffering from either severe or extreme depression.
- 49% therefore met criteria for moderate, severe and extreme depression.

Multivariate Audit Scores

- There is a significant association between alcohol and age (p=0.004) where respondents between the ages of 21-30 years had the highest scores for harmful drinking and alcohol dependence with 71% (12) and 57% (49) as compared to all other age groups.
- There is a very significant association between alcohol and employment status (p=0.000) with respondents who are either employed/self employed having higher scores for harmful drinking and alcohol dependence as compared to those unemployed/casual labourers.

Multivariate BDI Scores

- There is a significant association between depression and age (p=0.004) where respondents aged between 21-30 years had the highest scores on the BDI with 59% (37) meeting criteria for moderate depression and 58% (14) for severe depression compared to other age groups.
- There is a very significant association between depression and employment status (p=0.008) with respondents who are employed/self employed having higher scores for depression as compared to all other categories.

5.2 Discussion

- This study found 53% of female inmates met the criteria for hazardous/dependent drinking. This is in keeping with the high rates reported locally and globally. Mucheru (2006) reported 62% locally, and 40% reported in the UK. (WIP, 2013).
- 49% met the criteria for moderate, severe, extreme depressive symptoms. This is in keeping with reported rates globally, 49% (Singleton, Meltzer, 2003, Pinese, Fuergato, 2010, UKDJ, 2013).
- Locally, prevalence of depression of 25% had previously been reported (Mucheru, 2006)
- The researcher attributes the higher prevalence in this study (49%) vs. the previously reported 25% to the fact that the time frames of incarceration differed in the two studies, and recent inmates experience sudden lifestyle disruption, loss of freedom,

liberty, social and family support, loss of control and a highly regimented daily routine.

- This may lead to feeling of anxiety and despair which may exacerbate depressive symptoms.
- 19% (16) of alcohol dependent inmates had severe and extreme depression, i.e. comorbidity.
- This is within the range of reported comorbidities in other studies ï 8% (Abram, Teplin 2003), to 29% (Reiger, Farmer, 1990)
- The statistically significant association between alcohol and nature of offence ï 69% of capital offenders were taking alcohol in a harmful/dependent manner, is corroborated by extensive literature suggesting the same, which evidence a link between hazardous drinking and violent offending.(Richardson and Budd, 2003; Walker et al., 2006)
- A surprising finding in this study is that those meeting criteria for hazardous drinking (9%) were fewer than those who met the criteria for dependent drinking (44%). The researcher would have expected reverse results as the hazardous drinkers ógraduateô to dependence.

5.3 Limitations

- The cross-sectional design precludes the study from addressing issues concerning the temporal relationship between alcohol use disorders and depression.
- The data reflect circumstances of prisoners in one female prison in Nairobi, mainly from urban population so may not be generalizable.
- The data collection relied on self-report. No corroborative history or medical records were available.

5.4 Recommendations

- Screening of new inmates for depression and alcohol use disorders.
- This can be complemented by an integrated depression and alcohol use disorder services within the prison system.
- Psychoeducation about depression and alcohol use disorders as a priority for all incarcerated women.

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APPENDICES

APPENDIX I: INFORMED CONSENT.

Informed Consent will be sought from the inmates, in the Prison Welfare office and in the presence of the prison Officer ï in-Charge of Welfare, who will have been briefed about the aims and objectives of the study, and the rights of the participants to accept or decline to participate in the study without repercussion..

The results of the study will be shared with the Research, Statistics and Legal Unit of the Kenya Prisons Service, whose mandate includes policy formulation and administrative purposes.

Introduction:

INFORMATION AND CONSENT FORM FOR INMATES OF LANGATA WOMEN'S PRISON.

Title of the Study:

Association between Alcohol Use Disorders and Depression among Women at Langôata Womenôs Prison in Nairobi

Principal Investigator: Dr. Phyllis Muigai, Box 959-00618,Nairobi, Kenya. Tel: 0789228904

Co- Principal Investigator: Department of Psychiatry, University of Nairobi.

A. Informed consent explanation

To be read and questions answered in a language in which the study subject is conversant (English or Kiswahili and those who cannot read will be explained thoroughly).

My name is Dr Phyllis Njeri Muigai; I am a pursuing a Masters in Psychiatry at University of Nairobi. I am doing a study entitled ñPrevalence of Alcohol Harmful Use and Depression Amongst Recent Inmates (1 ï 12 Months) at Langôata Womenôs Prison in Nairobi.òas part of my degree award fulfillment. My supervisors are Prof. D.M.Ndetei, Dr. Caleb Othieno who are all Lecturers in the Department of Psychiatry, University of Nairobi.

The aim of this study is to find out the magnitude of depression and alcohol use disorders among women incarcerated for less than 1 year.

This study will be conducted by me under supervision of my supervisors.

This is a medical research and you are required to understand the following which apply to all in medical research

Your participation is completely voluntary and you may withdraw consent at any time in the course of the interview.

Refusal to participate will not in any way affect your sentence/ health services/benefits which you are entitled.

After reading the explanation, donôt hesitate to ask any questions in case you need clarifications.

I will assess your psychological profile by using instruments which will take about 30 minutes of your time. This instrument will assist me to pick any mental health problems that you may have and it will contain questions concerning your feelings, thoughts and behavior.

No invasive procedures such as drawing blood will be involved and no risks will be posed to you except that you may experience an emotional pain through asking you emotionally painfully questions.

All information obtained from this study will remain confidential and your privacy will be upheld. Serial numbers instead of your name will be used in this study for identification, however your name will only appear on the consent form which will be signed and kept separately from the study documents for legal purposes and for identification in case you will be found with psychological problems that need follow up.

There will be no material gain from this study. However the overall study may be of benefit to those in the prison population that may be having mental health problems in general in terms of policy implementation and better intervention and care of incarcerated persons in the aspect of mental health.

During interviews, research participants who are found to have mental or physical problem will be provided with immediate counselling and referred for treatment and follow-up services through the appropriate channels. The principal investigators being a psychologist and also completing her training in psychiatry can render these services herself.

Results of the study can be availed to you upon request.

There is no right or wrong answer.

If you have any questions related to this study, or your health you can call me on my telephone numbers +**254789228904** or my lead supervisors at the department of psychiatry, University of Nairobi Or KNH/ UON Ethics and Research Committee at Kenyatta Hospital on telephone number **2726300 Ext 44102** or P.O BOX **20723 -00202**, Nairobi

INFORMED CONSENT EXPLANATION (SWAHILI TRANSLATION)

Fomu ya maelezo ya maridhiano:

Mimi ni daktari na jina langu Phyllis Njeri Muigai, nasoma shahada udhamini ya magojwa ya akili chuo kikuu cha Nairobi. Nafanya utafiti unaojulikana kama ó Ukubwa wa matatizo ya unyogovu na utumiaji wa pombe kwa njia isiofaa miongoni mwa wanawake waliofungwa katika gereza ya Langata ya Wanawake kwa muda isiozidi mwaka moja ô ikiwa ni sehemu ya mahitaji ya digrii yangu. Wasimamizi wangu ni Profesa D.M. Ndetei na Dr Caleb Othieno na ambao wote ni wahadhiri katika kitengo cha magojwa ya akili Chuo kikuu cha Nairobi.

Dhumuni la utafiti huu ni kujua ukubwa wa matatizo wa unyogovu, na utumiaji wa pombe kwa njia isiofaa, na huu utafiti utafanywa na mimi mwenyewe chini ya usimamizi wa wasimamizi wangu niliowataja hapo juu.

Huu ni utafiti wa kitabibuna unahitaji kuelewa mambo yafuatayo ambayo hutumika katika tafiti zote za namna hii

Kushiriki kwako ni kwa hiari na unaweza kusitisha ridhaayako ya kushiriki wakati wowote

Kukataa kwako kushiriki haitaathiri kwa namna yoyote ile huduma zako za kiafya unazotakiwa kupewa

Baada ya kusoma maelezo usisite kuuliza maswali endapo utahitaji ufafanuzi.

Nitapima matatizo yako kwa kutumia vifaa ambavyo vitachukua kama dakika 30 ya muda wako. Hizi vifaa vitanisaidia kupata matatizo yoyote ya kiakili ambayo unaweza kuwa nayo, pia ina maswali yanayohusu vile unajisikia, fikira na pia tabia yako

Hakutakuwa na utolewaji damu katika utafiti huu

Hakutakuwa na athari zozote kwako isipokuwa labda maumivu ya kihisia kufuatia maswali yanayoumiza kihisia nitakayokuuliza

Habari zitakazopatikana katika utafiti huu zitabakia kuwa siri, na itatumika namba badala ya jina lako katika kukutambua ,ila itakubidi kuandika jina lako katika fomu ya maridhiano ambayo itahifadhiwa tofauti na nyaraka nyingine za utafiti. Hii ni kwa madhumuni ya kukutafuta na kukufuatilia afya yako baadae endapo utapatikana na matatizo ya kisaikolojia, na pia itakuwa kwa ajili ya mambo ya kisheria

Hakutakuwa na kupewa hela ama zawadi zozote zile katika utafiti huu ila matokeo yake yataweza kuwasaidia waliofungwa kwa ujumla katika kuhakikisha huduma bora za afya ya akili zinatolewa kwa waliyefungwa.

Nitaweza pia kukusaidia endapo utahitaji msaada ambao upo ndani ya uwezo wangu

Unaweza kupata ujumbe wowote kuhusu utafiti huu, unapouhitaji
Hakuna jibu lililo sahihi au lisilo sahihi

Endapo utakuwa na maswali yoyote kuhusiana na utafiti huu au afya yako tafadhali nipigie katika namba zangu za simu ambazo ni **+254789228904** au unaweza kuwauliza wasimamizi wangu katika kitengo cha afya na magonjwa ya akili chuo kikuu cha Nairobi Au unaweza kuwasiliana na KNH/ UON Ethics and Research Committee at Kenyatta Hospital kwenye namba **2726300 Ext 44102**.

A.Consent Form

I, the undersigned do hereby volunteer to participate in this study. The nature and purpose have been fully explained to me by Dr Phyllis Njeri Muigai.

The role I play by participating in the interviewee is to help the investigators collect information about mental health. This information may or may not be useful in designing better ways to improve inmatesmental wellbeing in the future. My questions, if any, have been answered to my satisfaction. The Kenyatta National Hospital Research and Ethics Board, may be contacted by research subjects to discuss their rights on P.O Box 20723-0020 Nairobi or call on telephone number 02726300 Ext 44102

Participantôs Signature _____Date_____

Serial Number _____

Witness Signature _____ Date_____

B.FOMU YA MARIDHIANO

Mimi ninayesaini najitolea kwa hiari yangu kushiriki katika utafiti huu ambao asili na lengo lake nimeelezwa kwa kina na dokta Phyllis Njeri Muigai

Naelewa kwamba habari itakaypoatikana itatumika tu kwa ajili ya huu utafiti na si vinginevyo na kwamba naweza kusitisha ridhaa yangu ya kushiriki katika utafiti huu wakati wowote na hii haitaathiri kwa namna yoyote ile huduma zangu za kiafya ninazotakiwa kupewa.

Jinaé é é é é Nambaé é é é é é ..Saini/dolegumbaé é é é é é é é é Tareheé é é é .

(Jina la mfungwa)

Mbele ya shahidi (Dr Phyllis Muigai)é é é sainié é é é é é é é é Tareheé é é é é é .

APPENDIX II: THE ALCOHOL USE DISORDERS IDENTIFICATION TEST

ñI am going to ask you some questions about your use of alcoholic beverages during this past year.ò Explain what is meant by ñalcoholic beveragesò by using local examples of beer, wine, vodka, etc. Code answers in terms of ñstandard drinksò. Place the correct answer number in the box at the right.

1. How often do you have a drink containing alcohol?

0	Never	( )	
1	Monthly or less	( )	
2	2 to 4 times a month	( )	
3	2 to 3 times a week	( )	
4	4 or more times a week	( )	

2. How many drinks containing alcohol do you have on a typical day when you are drinking?

0	1 or 2	( )	
1	3 or 4	( )	
2	5 or 6	( )	
3	7, 8 or 9	( )	
4	10 or more	( )	

3. How often do you have six or more drinks on one occasion?

0	Never	( )	
1	Less that monthly	( )	
2	Monthly	( )	
3	Weekly	( )	
4	Daily or almost daily	( )	

Skip to Questions 9 and 10 if Total Scorefor Questions 2 and 3 = 0

4. How often during the last year have you found that you were not able to stop drinking once you had started?

0	Never	( )
1	Less that monthly	( )

2 Monthly ( )

3 Weekly ( )

4 Daily or almost daily ( )

5. How often during the last year have you failed to do what was normally expected from you because of drinking?

0 Never ( )

1 Less that monthly ( )

2 Monthly ( )

3 Weekly ( )

4 Daily or almost daily ( )

6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?

0 Never ( )

1 Less that monthly ( )

2 Monthly ( )

3 Weekly ( )

4 Daily or almost daily ( )

7. How often during the last year have you had a feeling of guilt or remorse after drinking?

0 Never ( )

1 Less that monthly ( )

2 Monthly ( )

3 Weekly ( )

4 Daily or almost daily ( )

8. How often during the last year have you been unable to remember what happened the night before because you had been drinking?

0 Never ( )

1 Less that monthly ( )

2 Monthly ( )

3 Weekly ( )

4 Daily or almost daily ( )

9. Have you or someone else been injured as a result of your drinking?

0 No ( )

2 Yes, but not in the last year ( )

4 Yes, during the last year ( ) ☐

10. Has a relative or friend or a doctor or another health worker been concerned about your drinking or suggested you cut down?

0 No ( )

2 Yes, but not in the last year ( )

4 Yes, during the last year ( ) ☐

Record total of specific items here ☐

KIFAA CHA KUPIMA MADHARA YANAYOTOKANA NA UNYWAJI WA POMBE

READ THROUGH ALL THE QUESTIONS. YOUR HONEST ANSWERS TO THESE QUESTIONS ARE VERY IMPORTANT FOR YOUR HEALTH. Because alcohol use can affect your health and interfere with certain medications and treatments, it is important that we ask some questions about your use of alcohol. Your answers will remain confidential, so please be honest. For each question in the chart below, place an **X** in one box that best describes your answer.

Soma maswali yote kwa umakini. Ukweli wako katika kujibu maswali haya utakuwa muhimu sana kwa afya yako. Kwa sababu utumizi wa pombe unaweza kudhuru afya yako na kusababisha hitilafu wakati wa matibabu, ni muhimu tukuulize maswali kuhusu matumizi yako ya pombe. Majibu yako yatawekwa siri, kwa hivyo tafadhali jibu kwa ukweli. Kwa kila swali lifuatalo hapa chini weka alama ya **X** katika kisanduku kinachoelezea jibu lako.

1. Ni mara ngapi wewe hunywa kinywaji cha pombe ambacho uliweka mviringo hapo juu? How often do you drink the alcohol you circled above?	Sijawahi Never	Labda mara moja kwa mwezi Monthly or less	Mara 2-4 kwa mwezi 2 to 4 times a month	Mara 2-3 kwa wiki 2 to 3 times a week	Mara 4 au zaidi kwa mwezi 4 or more times a week
2. Ni vinywaji vingapi katika vile ulivyoweka mviringo hapo juu ambavyo wewe hunywa kwa siku moja? How many of the drinks that you circled do you have on a typical day when you are drinking?	1 au 2 1 or 2	3 au 4 3 or 4	5 au 6 5 or 6	7 au 9 7 or 9	10 au zaidi 10 or more
3. Ni mara ngapi wewe hunywa pombe tano au zaidi katika kikao kimoja? How often do you have 5 or more of the drinks that you circled in one sitting?	Hakuna Never	Labda mara moja kwa mwezi Less than monthly	Kila mwezi Every month	Kila juma/ wiki Every week	Kila siku au karibu kila siku Daily or almost daily
4. Ni mara ngapi katika mwaka uliopita ulipogundua unakaa chini kukunywa lakini ukashindwa kujipima kunywa kiasi? How often during the last year have you found that you were not able to stop drinking once you had started?	Hakuna Never	Labda mara moja kwa mwezi Less than monthly	Kila mwezi Every month	Kila juma/ wiki Every week	Kila siku au karibu kila siku Daily or almost daily

5. Ni mara ngapi katika mwaka uliopita ulikosa kutimiza wajibu wako au kazi yako kwa sababu ya kunywa pombe? How often during the last year have you failed to do what was normally expected of you because of drinking?	Hakuna Never	Labda mara moja kwa mwezi Less than monthly	Kila mwezi Every month	Kila juma/ wiki Every week	Kila siku au karibu kila siku Daily or almost daily
6. Ni mara ngapi katika mwaka uliopita ulihitaji kinywaji cha kulevya asubuhi ili kujichangamsha baada ya kunywa pombe nyingi sana siku iliyopita (yaani *kutoa rock*)? How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?	Hakuna Never	Labda mara moja kwa mwezi Less than monthly	Kila mwezi Every month	Kila juma/ wiki Every week	Kila siku au karibu kila siku Daily or almost daily
7. Ni mara ngapi katika mwaka uliopita ambapo umeona kuwa umekosa baada ya kunywa pombe? How often during the last year have you had a feeling of guilt after drinking?	Hakuna Never	Labda mara moja kwa mwezi Less than monthly	Kila mwezi Every month	Kila juma/ wiki Every week	Kila siku au karibu kila siku Daily or almost daily

8. Ni mara ngapi katika mwaka uliopita haukuweza kukumbuka chochote kilichotendeka wakati ulipokuwa mlevi (yaani *black out)?* How often during the last year have you been unable to remember what happened the night before while you were drunk?	Hakuna Never	Labda mara moja kwa mwezi Less than monthly	Kila mwezi Every month	Kila wiki Every week	Kila siku au karibu kila siku Daily or almost daily
9. Umewahi kuumia au mtu mwingine amewahi kuumia kwa sababu ya ulevi wako (yaani*kukata/sticker*? Have you or someone else been hurt/injured because of your drinking?	La No		Ndio, lakini sio katika mwaka uliopita Yes, but not during the last 12 months		Ndio, mwaka uliopita Yes, during the last 12 months
10. Je, kunaye mtu wa familia yako, rafiki, daktari au mfanya kazi wa afya, aliyeshughulika na unywaji wako wa pombe kukuhimiza kupunguza (yaani *kupata msomo*? Has a relative, friend, doctor or health care worker been concerned about your drinking or suggested you cut down?	La No		Ndio, lakini sio katika mwaka uliopita Yes, but not during the last 12 months		Ndio, mwaka uliopita Yes, during the last 12 months

APPENDIX III: BECK'S DEPRESSION INVENTORY

Form Week: _____ Institution Code: _____

Below are groups of statements. Please read each group of statements carefully. Then pick out the one statement in each group, which best describes the way you have been feeling the **PAST WEEK, INCLUDING TODAY!** Circle the number beside the statement you picked. If several statements in the group seem to apply equally well, circle each one. **Be sure to read all the statements in each group before making your choice.**

Ya fuatayo ni mafungu ya sentensi. Tafadhali soma kila fungu kwa makini. Chagua kutoka katika kila fungu sentensi ambayo yaelezea vyema ulivyokuwa ukihisi JUMA LILILOPITA NA UNAVYOHISI LEO! Ashiria sentensi moja au zaidi ya moja uliyochagua katika kila fungu kwa kuweka alama ya mviringo juu ya nambari ya sentensi hiyo. Hakikisha umesoma sentensi zote katika kila fungu kabla ya kuchagua sentensi iliyo sambamba na unavyo hisi.

	ENGLISH	***SWAHILI***
1	0 I do not feel sad. 1 I feel sad. 2 I am sad all the time and I canôt get out of it. 3 I am so sad or unhappy that I canôt stand it.	0 ***Sina huzuni.*** ***1 Nina huzuni.*** 2 ***Nina huzuni wakati wote na siwezi kujiondoa katika hali hii ya huzuni.*** 3 ***Nina huzuni sana mpaka siwezi kustahimili/kuvumilia.***
2	0 I am not particularly discouraged about the future. 1 I feel discouraged about the future. 2 I feel I have nothing to look forward to. 3 I feel that the future is hopeless and that things cannot improve.	***0 Sijavunjika moyo hasa na siku za usoni.*** 1 ***Nahisi nimevunjika moyo na siku za usoni.*** ***2 Nahisi sina ninalo tarajia siku za usoni.*** 3 ***Nahisi nimekata tamaa ya siku za usoni, na naona mambo hayawezi kuwa bora zaidi.***
3	0 I do not feel like a failure. 1 I feel that I have failed more than the average (normal) person. 2 As I look back on my life, all I can see is a lot of failures. 3 I feel am a complete failure as a person.	0 ***Sijihisi kama nimeanguka maishani.*** 1 ***Nahisi nimeanguka maishani zaidi ya mtu wa kawaida.*** 2 ***Nikiangalia maisha yangu yaliyopita naona nimeanguka sana.*** 3 ***Nahisi nimeanguka kabisa maishani.***
4	0 I get as much satisfaction as I used to from things I normally do. 1 I donôt enjoy things the way I used to. 2 I donôt get real satisfaction out of anything anymore. 3 I am dissatisfied or bored with everything.	0 ***Naridhika na mambo kama ilivyo kawaida yangu.*** 1 1***Si furahii mambo kama nilivyokuwa nikifurahia.*** 2 ***Sitosheki tena kikamilifu na jambo lolote.*** 3 ***Sitosheki wala sichangamshwi na chochote tena.***
5	0 0 I donôt feel particularly guilty. 1 I feel guilty sometimes.	0 ***0 Sihisi hasa kama nina hatia fulani.*** 1 ***Nahisi nina hatia wakati mwingine.***

	2 I feel quite guilty most of the time. 3 I feel guilty all the time.	2 ***Nahisi nina hatia wakati mwingi.*** 3 ***Nahisi nina hatia wakati wote.***
6	0 I donĉt feel I am being punished. 1 I feel I may be punished. 2 I expect to be punished. 3 I feel I am being punished.	***0 Sihisi kama nina adhibiwa.*** ***1 Nahisi kama naweza kuadhibiwa.*** 2 ***Natarajia kuadhibiwa.*** 3 ***Nahisi nina adhibiwa.***
7	0 I donĉt feel disappointed in myself. 1 I am disappointed in myself. 2 I am disgusted with myself. 3 I hate myself.	0 ***Sihisi kama nimeikasirikia nafsi yangu.*** 1 ***Nimeikasirikia nafsi yangu.*** 2 ***Najidharau.*** 3 ***Najichukia.***

8	0 I donĉt feel I am any worse than anybody else. 1 I am critical of myself for my weaknesses or mistakes. 2 I blame myself all the time for my faults. 3 I blame myself for everything bad that happens.	0 ***Sihisi kama mimi ni mbaya zaidi ya mtu yeyote yule.*** 1 ***Najisuta (kujitoa makosa) sana katika makosa yangu ama udhaifu wangu.*** ***2 Najilaumu wakati wote kwa makosa yangu.*** 3 ***Najilaumu kwa ovu lolote linalo tendeka.***
9	0 I donĉt have any thoughts of killing myself. 1 I have thoughts of killing myself, but I would not carry them out. 2 I would like to kill myself. 3 I would kill myself if I had the chance.	0 ***Sina wazo lolote la kujiuwa.*** 1 ***Nina wazo la kujiua, lakini sitalitimiza wazo hilo.*** 2 ***Ningetaka kujiuwa.*** 3 ***Nitajiuwa nikipata nafasi.***
10	0 I donĉt cry any more than usual. 1 I cry more now than I used to. 2 I cry all the time now. 3 I used to be able to cry, but now I canĉt cry even though I want to.	0 ***Silii siku hizi zaidi ya vile ilivyo kawaida yangu.*** 1 ***Nalia siku hizi zaidi ya ilivyokuwa kawaida yangu.*** 2 ***Nalia wakati wote siku hizi.*** 3 ***Nilikuwa nikiweza kulia, lakini sasa hata nikitaka kulia siwezi.***
11	0 I am no more irritated now than usual. 1 I get annoyed or irritated more easily than I used to. 2 I feel irritated all the time now. 3 I donĉt get irritated at all by the things that used to irritate me.	***0 Sikasirishwi kwa urahisi siku hizi zaidi ya ilivyo kawaida yangu.*** ***1 N akasirishwa kwa urahisi zaidi ya ilivyokuwa kawaida yangu.*** 2 ***Nahisi nimekasirishwa wakati wote siku hizi.*** 3 ***Sikasirishwi kamwe na mambo ambayo yalikuwa yakinikasirisha.***
12	0 have not lost interest in other people. 1 I am less interested in other people than I used to be. 2 I have lost most of my interest in other people. 3 I have lost all of my interest in other	0 ***Sijapoteza hamu ya kujihusisha au kujumuika na watu.*** 1 ***Hamu yangu ya kujihusisha na watu imepungua zaidi ya ilivyokuwa.*** 2 ***Nimepoteza sana hamu yangu ya kujihusisha na watu.***

	people.	3 ***Nimepoteza hamu yangu yote ya kujihusisha na watu.***
13	0 I make decisions just as well as I ever could. 1 I put off making decisions more than I used to. 2 I have greater difficulty in making decisions than before. 3 I canôt make decisions at all anymore.	***0 Ninafanya uamuzi kuhusu jambo lolote kama kawaida.*** ***1 Ninahairisha kufanya uamuzi zaidi ya vile nilivyokuwa nikifanya.*** 2 ***Nina uzito mkubwa wa kufanya uamuzi kuliko hapo awali.*** 3 ***Siwezi tena kufanya uamuzi wa jambo lolote lile.***
14	0 I donôt feel I look any worse than I used to. 1 I am worried that I am looking unattractive. 2 I feel that there are permanent changes in my appearance that make me look unattractive. 3 I believe that I look ugly.	0 ***Sihisi kuwa naonekana vibaya zaidi ya vile nilivyokuwa.*** 1 ***Nina wasi wasi kuwa naonekana sivutii.*** 2 ***Ninahisi kuwa kuna mabadiliko yasio ondoka kwenye umbo langu yanayofanya nisivutie.*** 3 ***Nina amini ya kuwa nina sura mbaya.***
15	0 I can work just as well as before. 1 1 It takes an extra effort to get started at doing something. 2 I have to push myself very hard to do anything. 3 I canôt do any work at all.	0 ***Naweza kufanya kazi kama vile ilivyokuwa hapo awali.*** 1 ***Nilazima nifanye bidii, ndipo nianze kufanya jambo lolote*** 2 ***Inabidi nijilazimishe sana ili niweze kufanya jambo lolote*** 3 ***Siwezi kabisa kufanya kazi yoyote.***
16	0 I can sleep as well as usual. 1 I donôt sleep as well as I used to. 2 I wake up 1-2 hours earlier than usual and find it hard to get back to sleep. 3 I wake up more than 2 hours earlier than I used to and cannot get back to sleep.	0 ***Ninalala kama kawaida yangu.*** 1 ***Silali vyema kama nilivyo kuwa nikilala hapo awali.*** 2 ***Naamka mapema kwa saa limoja au masaa mawili, ambayo sio kawaida yangu, halafu ni vigumu kupata usingizi tena.*** 3 ***Naamka mapema zaidi ya masaa mawili, ambayo sio kawaida yangu, halafu siwezi kupata usingizi tena.***
17	0 I donôt get more tired than usual. 1 I get tired more easily than I used to. 2 I get tired from doing almost anything. 3 I am too tired to do anything.	0 ***Sichoki zaidi ya nilivyokuwa nikichoka hapo awali.*** 1 ***Nachoka kwa urahisi zaidi ya kawaida yangu.*** 2 ***Nachoshwa (Nachokeshwa), karibu na kila jambo ninalofanya*** 3 ***Ninachoka sana hata siwezi kufanya lolote.***
18	0 My appetite is no worse than usual. 1 My appetite is not as good as it used to be. 2 My appetite is much worse now. 3 I have no appetite at all anymore.	0 ***Hamu yangu ya chakula sio mbaya zaidi ya vile ilivyokuwa hapo awali.*** 1 ***Hamu yangu ya chakula sio nzuri kama vile ilivyokuwa hapo awali.*** 2 ***Hamu yangu ya chakula ni mbaya zaidi siku hizi.***

		3 ***Sina tena hamu ya chakula hata kidogo.***
19	0 I havenôt lost any noticeable weight, lately. 1 I have lost more than 2 kilograms. 2 I have lost more than 5 kilograms. 3 I have lost more than 7 kilograms . I am purposely trying to lose weight by eating less Yes _____ No _____	0 ***Sijapunguza uzito wa mwili wakuonekana hivi karibuni.*** 1 ***Nimepunguza uzito wa mwili zaidi ya kilo mbili.*** 2 ***Nimepunguza uzito wa mwili zaidi ya kilo tano.*** 3 ***Nimepunguza uzito wa mwili zaidi ya kilo saba.*** **Ninakula chakula kiasi kidogo kwa kusudio la, kujaribu kupunguza uzito wa mwili** ***Ndivyo _____ Sivyo _____***
20	0 I am no more worried about my health than usual. 1 I am worried about physical problems such as aches and pains; or upset stomach; or constipation. 2 I am very worried about physical problems and it is hard to think about much else. 3 I am so worried about my physical problems that I cannot think about anything else.	0 ***Sina wasiwasi usio wa kawaida kuhusu hali yangu ya afya.*** 1 ***Nina wasiwasi kuhusu shida za mwili kama vile maumivu hapa na pale; au shida ya tumbo, au kufunga choo.*** 2 ***Nina wasiwasi sana kuhusu matatizo ya mwili mpaka inakuwa nivigumu kuwaza jambo lengine lolote.*** 3 ***Nina wasiwasi sana kuhusu matatizo yangu ya mwili mpaka siwezi kuwaza jambo lingine lolote.***
21	0 I have not noticed any recent change in my interest in sex. 1 I am less interested in sex than I used to be. 2 I am much less interested in sex now. 3 I have lost interest in sex completely.	0 ***Sijaona mabadiliko yoyote hivi karibuni kuhusu hamu yangu ya kufanya mapenzi.*** 1 ***Hamu yangu ya kufanya mapenzi imepungua zaidi ya vile ilivyokuwa.*** 2 ***Hamu yangu ya kufanya mapenzi imepungua sana siku hizi.*** 3 ***Nimepoteza kabisa hamu yangu ya kufanya mapenzi.***

APPENDIX IV: DEMOGRAPHIC QUESTIONNAIRE

PREVALENCE OF ALCOHOL HARMFUL USE AND DEPRESSION AMONGST RECENT INMATES (1 – 12 MONTHS) AT LANG'ATA WOMEN'S PRISON IN NAIROBI

1. Which constituency do you reside in? _____

2. How old were you at your last birthday? _____

3. Are you married?

☐ Married

☐ Divorced

☐ Widowed

☐ Never Married (skip to question 5)

4. How many years have you been married? _____

5. What is the highest level of education you have completed?

☐ Less than Primary

☐ Primary

☐ Secondary

☐ College/University

6. Can you read well in Swahili?

☐ Yes ☐ No

7. Do you work?

☐ Yes

☐ No (skip to question 11)

8. What do you do for work? _____

9. How many years have you worked? _____

10. Including everyone who lives in your house, approximately how much money does your household earn each month? _____

11. By yourself, approximately how much money do you earn each month? _____

11. How long have you been sentenced to jail term? _____

12. Is this your first time to be jailed?

Yes ( )

No ( )

13. If no to question 7, how many times have you been sentenced to jail term? _____

14. Reason(s) for jail sentence: _____

APPENDIX V: LETTER OF PERMISSION FROM KENYA PRISONS SERVICE

COMMISSIONER GENERAL OF PRISONS

KENYA PRISONS SERVICE

Telegrams: "COMPRISONS", Nairobi
Telephone: +254-20-2722900-6
Fax: +254-20-2714716
E-mail: commissioner.prisons@gmail.com
When replying please quote

P.O. Box 30175-00100
NAIROBI

PRIS1/21 VOL. I/87

8th April 2014, 20

Ref. No. .....

Commissioner General,
Kenya Prisons Service,
Ministry of Interior and National
Government & Coordination,
NAIROBI, KENYA

Dr Phyllis Njeri Muigai,
Department of Psychiatry,
University of Nairobi,
Mathari Teaching and Referral Hospital,
P.O.Box 40663- 00100
NAIROBI, KENYA

Dear Dr Muigai,

REQUEST FOR PERMISSION TO CONDUCT ACADEMIC RESEARCH AT LANGÁTA WOMENS' PRISON.

RDP/001 in reference to your letter dated 4th April 2014.

I am pleased to inform you that your request, Reference A, on mental health research in prison inmates has been granted. This permission is given to you on the basis that ethical principles in the conduct of human subject research will be observed.

You will be assisted by the Officer-in-Charge Langata Womens Prison.

Your research is a sound initiative as mental health is of utmost importance among prisoners in correctional facilities. We will support you and any such research activities aimed at increasing the body of literature on the mental health of prison inmates.

Let us know if there is any other way we can assist in ensuring your research is of sound outcome.

Yours sincerely,

ISAYAH OSUGO, CBS
COMMISSIONER GENERAL,

cc KNH-UoN ERC
Dept of Psychiatry, UoN

APPENDIX VI: CURRICULUM VITAE : DR. PHYLLIS NJERI MUIGAI

DR. PHYLLIS NJERI MUIGAI

D.O.B: 23RD MARCH 1980

P.O.BOX 959-00618 RUARAKA, NAIROBI

0711-228904

Email: n_muigai@yahoo.co.uk

dr.n.muigai@gmail.com

ACADEMIC BACKGROUND.

1. UNIVERSITY OF NAIROBI 2011-Presently

   Currently pursuing a Masters of Medicine in Psychiatry.

2. EAST AND SOUTHERN AFRICA MANAGEMENT INSTITUTE- 2011-2013

   Degree conferred:

   Executive Masters in Business Administration – MBA

3. UNIVERSITY OF SEYCHELLES-AMERICAN INSTITUTE OF MEDICINE (UK CHAPTER) -2003-2008

   Degree conferred:

   Doctor of Medicine (MD). Honours.

4. McMASTER UNIVERSITY –CANADA 1998-2002.

   Degree conferred:

   Bsc.Honours, Msc Psychology. Specialist in Clinical Psychology

   Minor in Economics.

5. BRONTE COLLEGE –CANADA 1998

Successfully completed A-levels, Pre-university qualifications

6. ST.GEORGE'S SECONDARY SCHOOL, NAIROBI. 1994-1997

   Kenya Certificate of Secondary Education (KCSE) Achieved Grade A

CLINICAL ATTACHMENT/WORK EXPERIENCE.

1. MATHARI PSYCHIATRIC TEACHING AND REFERRAL HOSP. 2011-Presently.

   Currently undertaking my post graduate studies in Masters of Medicine in Psychiatry, covering psychiatric disorders, including substance use disorders, Child Psychiatry, Liaison Psychiatry and Forensic Psychiatry. I also hold the position of Chief Registrar

   .

2. CHUKA DISTRICT HOSP/ MAKUENI DISTRICT HOSP. 2009-2011.

   Having completed my internship at Chuka District Hospital, I worked as a Medical Doctor at Makueni District Hospital, covering

   - Obstetrics/Gynaecology, Managing both normal and abnormal labour and deliveries, multiple pregnancies, perform caesarean sections, manage gynaecological conditions etc.

   - Paediatrics and Child Health – Managing acute emergencies in neonates, infants and children, infections, dehydration, malnutrition etc. Successfully completed the Paediatric Advanced Life Support course (PALS –ETAT+) in August 2010. Also competent in Paediatric ART.

   - Internal Medicine. Competent to manage common medical emergencies and problems, infectious disease, interpretation of laboratory tests and diagnostics, CPR and ALS. Undertook Adult ART course in February 2010, and can manage persons living with HIV/AIDS. Ran the CCC clinic at the hospital.

- Surgery-Competent in the principles of pre-operative and post operative care, aseptic technique and theatre practice, handling common surgical emergencies and proficient in performing basic surgical procedures.

3. PHOENIX TRAINING SOLUTIONS .2010-Presently.

   Consultant Clincal Psychologist with the above firm, specializing in developing human potential through offering training that impact on the individual's psychological health, creating a balance that ensuring mental and physical wellbeing.

4. KENYATTA NATIONAL HOSPITAL. 2009

   Worked in the Infectious Disease Unit, and was able to manage patients with HIV/AIDS, TB, and Opportunistic infections associated with decreased immunity.

5. CLINICAL ATTACHMENTS, LONDON HOSPITALS 2006-2008

- EPSOM GENERAL HOSPITAL-LONDON 2007-2008.

Under the supervision of various consultants, I undertook a 12 week core Internal Medicine attachment , and I was actively involved in the care and treatment of patients undergoing various specialized treatments in all areas of Internal medicine, including cardiology, pulmonology, gastroenterology, renal medicine, endocrinology etc.

- EALING HOSPITAL –LONDON 2007.

Undertook a 12 week surgical rotation with consultant surgeons, in Vascular Surgery, Orthopaedic Surgery, Gastrointestinal Surgery, Breast Surgery, Neurosurgery etc.Also undertook a 12 week Obstetrics and Gynaecology rotation, whereby I assisted in normal and caesarean deliveries.

- NEWHAM HOSPITAL –LONDON 2006.

Undertook a 12 week rotation in Paediatrics, covering genetic, acquired and infectious diseases of childhood, paediatric cardiology, nephrology etc.

- EDGEWARE HOSPITAL –LONDON 2006.

Under the supervision of the Consultant Psychiatrist, I was involved in the evaluation, treatment, management and care of various patients with a wide range of Psychiatric diagnoses.

6. BUSTANI CARE- NAIROBI 2005

Worked closely with young adults battling substance and drug abuse, mood and personality disorders, learning difficulties, emotional and behavioural problems, and assisted in their rehabilitation and subsequent integration into society, overseeing their adjustment, and facilitating enhanced communication and problem solving skills. Provided psychological support, followed their progress and carried out monthly evaluation reports. In addition, worked closely with Dr. Frank Njenga in conducting a study into autism, its pervasiveness, epidemiology, statistics, presentation (and variations of) in Kenyan society for publication.

7. HAMILTON-CHEDOKE HOSPITAL – CANADA 2002-2003

As part of the Canadian Government Early Autism Initiative, I worked as a Psychologist with children and adolescents with Autism and associated learning disabilities. Applied Intensive Behavioural Intervention (IBI/ABA) techniques, collected data, monitored and evaluated the client's progress, and developed individualized programmes designed to meet the specific needs of the clients. Also worked closely with individuals with Learning Disabilities as part of a multi-disciplinary team.

8. INDEPENDENT RESEARCH- McMASTER UNI HOSPITAL- CANADA 2002

Investigated Pervasive Developmental Disorders, with specific focus on Autism – possible genetic and environmental factors, as well as early predictors of Autism spectrum Disorder.

PROFESSIONAL MEMBERSHIPS/TRAININGS.

1. Registered with the Kenya Medical Practitioners and Dentists Board.
2. Member of the Kenya Medical Association.
3. Member of the Kenya Psychiatric Association.
4. Member of the British Psychological Society, Division of Clinical Psychology 225452
5. Paediatric Advanced Life Support – PALS/ETAT +
6. Adult Anti Retroviral Therapy
7. Wilderness Advanced Life Support –WALS
8. UNODC Certified on Drug Abuse – Knowledge, Attitude, Treatment & Management.

(References and supporting documents available upon request)