

**THE PREVALENCE OF ALCOHOL ABUSE AMONG EGERTON UNIVERSITY  
STUDENTS IN NJORO- KENYA**

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**A Thesis Submitted to the Department of Psychiatry, Faculty of Medicine in Partial  
Fulfilment of the Requirements for the Degree of Masters of Science in Clinical  
Psychology of the University of Nairobi.**

**September, 2016**

**Declaration**

This thesis is my original work and has not been presented for a degree in this or any other university.

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## **DEDICATION**

This thesis is dedicated to my wife Monicah Lydia J. Boitt, daughters Irene J. Boitt, Hope J.

Boitt and my mother Esther Targok

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First, I would like to thank the Almighty God who continuously blesses me to be successful in all that I do. His grace, love, support and patience has made this journey successful. I wish to express my sincere appreciation to various institutions which contributed towards the successful completion of this work. Egerton University for granting me study leave to pursue my postgraduate studies. Thanks to the University of Nairobi for giving me the opportunity to pursue my studies in their institution. I am also grateful to NACADA, Kenya for funding my research and the Higher Educational Loans Board for giving me loan to carry out my studies. I am grateful to the UoN & KNH Ethics Committee for giving me permission to carry out the research. I wish to thank all the staff members of the Department of Psychiatry in the School of Medicine, University of Nairobi for their encouragement and support.

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## **Abstract**

The main objective of higher institutions of learning in Kenya is to provide education and growth experiences for its students but alcohol abuse has continued to be a problem in the university campuses that is slowing down their progress and the Kenya vision 2030 that envisages a healthy population free from the impact of alcohol abuse through the reduction of the prevalence and the impact of alcohol abuse disorders in order to attain the highest possible level of physical, social and mental health. Despite the growing problems of global alcohol abuse, accurate information on the prevalence of alcohol abuse among university students in Kenya is still inadequate. The study therefore aimed to determine the prevalence of alcohol abuse among the Egerton University students. This was a cross sectional study which investigated the prevalence of alcohol abuse among 355 students of Egerton university Njoro campus. Stratified random sampling was utilized to select the study group and the Alcohol Use Disorders Identification Test questionnaire was used to assess the prevalence of alcohol abuse. Data was analysed using SPSS version 18.0. Both descriptive and inferential statistics were used. Data presentation was done using frequency tables, charts and in narratives. The study was cleared by the Kenyatta National Hospital and the University of Nairobi ethics board. The study found out that the prevalence of alcohol abuse among Egerton University students is 21.1 %. The study found significant association between the prevalence of alcohol abuse and the year of study, marital status, family's economic status and the living arrangements (with whom). There was no significant association between the prevalence of alcohol abuse and age, programme of study undertaken and place of residence. It was concluded that alcohol abuse is prevalent among Egerton university students and is associated with year of study, marital status, family economic status and living arrangement. Based on the findings of this study, there is need to detect, strengthen various policies and programmes and accordingly make changes to address the factors that contribute to alcohol abuse in the institutions of higher learning in Kenyan. The findings of the study will help Commission of University Education (CUE) to better understand the current situation and accordingly make changes to address the factors that contribute to alcohol abuse in these institutions.

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### **List of Abbreviations**

<b>AIDS</b>	–	Acquired Immune Deficiency Syndrome
<b>APA</b>	–	American Psychological Association
<b>AUDIT</b>	–	Alcohol Use Disorders Identification Test
<b>DSM-IV</b>	–	Diagnostic Statistical Manual
<b>GOK</b>	–	Government of Kenya
<b>HIV</b>	–	Human Immuno Deficiency Virus
<b>ICD</b>	–	International Classification of Disease
<b>JAB</b>	–	Joint Admission Board
<b>JKUAT</b>	–	Jomo Kenyatta University of Agriculture and Technology
<b>NACADA</b>	–	National Campaign against Alcohol and Drug Abuse
<b>NACADAA</b>	–	National Campaign against Alcohol and Drug Abuse Authority
<b>NIAANAC</b>	–	National Institute on Alcohol Abuse and Alcoholism National Advisory Council
<b>STD</b>	–	Sexually Transmitted Disease
<b>SSP</b>	–	Self Sponsored Student
<b>U.S.A</b>	–	United States of America
<b>WHO</b>	–	World Health Organization

## **Definition of Terms**

**Alcohol** – A composition of ethanol and it is considered intoxicating agent in fermented and distilled liquors such as beer, spirits, wine and other drinks. It is a mixture of ethanol and water that is 95% ethanol.

**Alcohol Abuse** – A disorder demonstrated by repeated alcohol use in spite of major adverse consequences of drinking that interferes with work, regulation, wellbeing or family life.

**Alcohol Dependence** – A collection of physiological, behavioural and cognitive occurrences in which the use of alcohol takes on a much higher significance for a given person than other behaviours that before had greater importance.

**Alcohol Use Disorders** – A maladaptive form in which an individual's intake of alcohol is excessive sufficient to harm or badly affect physical, mental health, personal, social, occupational function, or when alcohol has become a necessity to normal function.

**Prevalence** – The proportion of a population found to have a disease or risk factor like alcohol abuse.

**Socio-Demographic** – It is a set of variables such as a given populations age, ethnicity, socio-economic status, or whether they live in urban or rural area.

## CHAPTER ONE: INTRODUCTION

### 1.1 Background to the Study

The main objective of institutions of higher learning in Kenya is to provide education and growth experiences for its students but alcohol abuse has continued to be a problem in the university campuses that is slowing down their progress and the Kenya vision 2030 that envisages a healthy population free from the impact of alcohol abuse and reduction of the prevalence as well as the impact of alcohol abuse disorders in order to attain the highest possible level of physical, social and mental health (GOK, 2012). WHO (2010) stated that “mental health refers to the successful performance of mental function, resulting in production activities, fulfilling relationships with other people and the ability to adapt to change and to cope with adversity”.

It is evident that about 2 billion people globally take alcohol and 76.3 million are diagnosed with alcohol use disorders (WHO, 2004). But in many parts of the world alcohol is used as a socializing agent after work and is profoundly rooted in many cultures worldwide. Currently, changes are noticeable in drinking patterns worldwide that includes rates of alcohol abuse to excess in general population, with substantial sporadic alcohol abuse among young people (WHO, 2009), particularly between 15-24 years of age (Moreira, Smith, Foxcroft, & Moreira, 2009). Globally, 320 000 young people aged 15-29 years die annually, from alcohol-related causes, resulting in 9% of all deaths in that age group (WHO, 2011). Dantzer, Wardle, Fuller, Pampalone, & Steptoe. (2006) indicated that in USA 40% of adolescents take drugs and 60% consume alcohol while in Asia 48.9% of University students' use drugs, 24% being 1st years while 75.6% are final years and that Ireland had the highest proportions of male and female

who abuse alcohol. Denzer and his colleagues further stated that peer pressure influence young people to use intoxicating substances with alcohol being the most abused which is a common feature among university students globally. In China, Cheng-Ye, Pei-Jin and Yi (2012), found out that alcohol abuse among university students was prevalent and that 80.8% were lifetime drinkers, 49.3% were current drinkers (drank alcohol in the past 30 days) and 23.5% were binge drinkers (drank five or more drinks in a period of 2 hours). Studies show that alcohol is the most frequently abused intoxicating substance among university students in Africa and it has been blamed for rapid economic, social, and cultural transitions that most countries in sub-Saharan Africa are experiencing which created a good medium for increased alcohol abuse (John-Lengba, Ezeh, Guttella, Kumi.- Kyereme, & Neema, (2004).

A research done among University students in Ethiopia found that alcohol was the most abused substance, but there was little evidence available about the scale of substance use in the population (Fekadu, Atalay & Charlotte, 2007). In South Africa, a study among university students found that 75% of respondents abused alcohols with 50% of moderate to heavy drinkers being young men (Nkhoma & Maforah, 1994). In Malawi, the prevalence of alcohol abuse among university students showed that 54.1% were males and 16.5% were females (Zverev, 2008). Stafstrom and Agarth (2012) found out that almost half of the students in Mbarara University in Uganda were current alcohol users, and a quarter of them had engaged in heavy episodic drinking. Wakgari and Aklilu (2011) had earlier found that 31% of medical students of Addis Ababa University from first year to internship were life-time users of alcohol and 22% reported drinking alcohol in the past year.

Alcohol abuse in the institutions of higher learning in Kenya threatens the achievement of vision 2030 and holistic wellbeing (GOK, 2012). According to NACADA (2007), the practice



of alcohol abuse has developed to a point where it has become a culture and tradition rooted in every level of university environment and that practice is handed down through cohorts of alcohol abusers strengthen students' expectation that alcohol is a necessary factor for social success. Hagembe & Simiyu (2006) indicated that in Kenya, the society does not take alcohol abuse as a major problem in spite of the fact that many people suffer from conditions associated with alcohol abuse.

Odek-Ogunde & Pande-Leak (1999) in a study reported a high rate of alcohol abuse among students at a Kenyan private university at 84%. Egerton University has no alcohol and drug policy. JKUAT (2011) policy on alcohol and other substances in their institution showed that alcohol is readily available and accessible owing to the number of alcohol selling premises within its community with use of alcohol during staff and student functions.

The widespread of this problem resulted in the creation of NACADA by the government of Kenya which formed a policy to manage the problem. This may not be achieved very soon considering the porous boundary that Kenya has and the Police officers who are prone to corruption and can easily be bribed for illicit brew and contra band drugs which slip under their watch. Despite the growing problems of alcohol abuse more broad studies with organized approaches in the world, needs to be revised to produce representative results on alcohol abuse in university settings. Hence the study sought to determine the prevalence of alcohol abuse among Egerton University students with the ultimate aim to improve mental health and to increase pass rate and completion rate among the students.

## **1.2 Problem Statement**

According to Chuka University policy on alcohol abuse (2013), it pointed out that alcohol abuse in Kenya as in other countries has infiltrated every domain of the society and it weakens a nation. Alcohol abuse is widespread in Kenyan society, with the youth and young adults being the most affected groups. 13% of people from all Counties in Kenya except North Eastern abuse alcohol (NACADAA, 2007). According to UNODC, half of alcohol and drug abusers in Kenya are between 10-19 years of age with over 60% living in urban while 21% reside in rural set up (UNODC, 2004). Alcohol abuse by university students is linked to a range of negative effects that include alcohol poisoning, blackouts; poor academic performance; violence, property damage, rape, assault; unwanted pregnancies; Sexually Transmitted Diseases that include HIV/AIDS; and breaching the rules and laws that spoil their chance of employment in future (NIAAANAC, 2002). Studies carried out in Kenya indicate high rates of alcohol abuse, Odek-Ogunde & Pande-Leak (1999) reported high rates of alcohol abuse among students at a Kenyan private university, with rates as high as 84%.

Hagembe & Simiyu (2006) indicated that alcohol abuse in Kenya has become pandemic and it has affected the society mostly out of the fact that few people preserved alcohol as serious health problem. It further stated that supply of alcohol and demands supplement each other, with the result being routine of alcohol abuse leading to habitual use and tolerance. In the recent times, the media has published information that shows the tragic outcome of alcohol abuse in Kenya. The adverse effect of alcohol abuse is revealed in the immediate and long-term effects to the individuals and their families, as well as the entire society and indication of university riots and property destruction which is related to alcohol abuse (Atwoli, Munpla, Ndung'u, Kinoti, & Ogot, 2011). Regardless of the threats posed by alcohol

abuse, prevalence of alcohol abuse among university students in Kenya has not been addressed adequately. Inadequate research on prevalence of alcohol abuse has been done in Egerton University. Basing on previous research, there is assumption that, although it is difficult to generalize prevalence of alcohol abuse in many African countries and the rest of the world, binge-drinking is a common phenomenon in the Kenyan general population. The university environment has a significant role in shaping student behaviour and it should not be seen as supporting a heavy drinking culture therefore it is essential to find out the prevalence of alcohol abuse and objective drinking norms on campus so that appropriate interventions can follow and the impact of these interventions measured. Therefore this study sought to find out the prevalence of alcohol abuse among Egerton University students, with a view of coming up with intervention measures to improve, promote and enhance mental health of students at Egerton University.

### **1.3 Research Questions**

What is the prevalence of alcohol abuse among Egerton University students?

Is there a relationship between alcohol abuse and socio-demographic characteristic/ variables?

### **1.4 Overall Objective of the Study**

The overall purpose of the study was to assess the prevalence of alcohol abuse among Egerton University Students.

### **1.5 Specific Objectives**

- (i) To determine the prevalence of alcohol abuse among Egerton University students.
- (ii) To determine the socio-demographic factors associated with alcohol abuse among Egerton University students.

### **1.6 Justification of the Study**

Alcohol abuse in the institutions of higher learning in Kenya threatens the achievement of vision 2030 and holistic wellbeing. Alcohol abuse by university students is linked to a range of negative effects that include alcohol poisoning, blackouts; poor academic performance; violence, property damage, rape, assault; unwanted pregnancies; Sexually Transmitted Diseases that include HIV/AIDS; and breaching the rules and laws that spoil their chance of employment in future. The persistence of alcohol abuse endangers the lives of people; hurt the economy and the general development of the country as a whole. The projected study would help the Commission of University Education (CUE) to better recognize the current situation and accordingly make changes in the policy to address the factors that contribute to alcohol abuse in Kenya Universities. The current study would add to the general information in this part by adding to the existing information and research on alcohol abuse among university students in Kenya. It would therefore, act as a point of future reference for any other research undertaken in institutions of higher learning on alcohol abuse. The number of alcohol abusers in the population rises annually in spite of the efforts to eliminate the problem.

### **1.7 Study Limitations**

The study was limited to Egerton University and thus generalization to other Universities was made with caution. Challenges met while carrying out the research included time constraints whereby the study took longer time than expected, due to financial limitations that influenced the scope of the study and transport problem.

## CHAPTER TWO: LITERATURE REVIEW

### 2.1 Introduction

This chapter reviewed literature related to the prevalence of alcohol abuse. It looked also into the social demographic factors related to alcohol abuse in institutions of higher learning internationally, regionally and nationally. Lastly the chapter reviewed the theoretical framework of the study.

### 2.2 Prevalence of Alcohol Abuse

Alcohol abuse is defined as a disorder marked by recurrent alcohol abuse in spite of major adverse effects and is reflected with problems with work, law, health or family life (DSM IV, 1994). Prevalence of alcohol abuse is the proportion of a population found to abuse alcohol in a given general population. According to NACADA (2011), about 200,000,000 people worldwide abuse alcohol. On one of the studies carried out on alcohol abuse, it indicates that globally university students have a higher prevalence of alcohol abuse (Karama, Kypros, & Salamoun, 2007). Dantzer et al. (2006) indicated that in USA 40% of adolescents' abuse drugs and 60% abuse alcohol while in Asia 48.9% of University students' abuse alcohol, 24% being 1st years while 75.6% are final years and that Ireland had higher proportions of male and female who abused alcohol. The prevalence of risky alcohol abuse is greater in other continents, but is lesser in Africa and Asia (Karama, Kypros, & Salamoun, 2007).

A research article on alcohol abuse and associated factors among university students in Ethiopia indicated that alcohol was most used by university students at 50.2% (Gezahegn, Andualem, & Mitiku, 2014). A South African study shows that alcohol abuse prevalence rate was 39.1% (Madu & Matla, 2003). Young & De Klerk (2008) studied the patterns of alcohol abuse on a South African university campus in 2008, and found that on a cut off of 8 on the

Alcohol Use Disorder Identification Test (AUDIT) 33.4% were risky drinkers, (AUDIT 8–15) 7.8% were harmful drinkers (AUDIT 16–19) and 9.0% probable alcohol dependent (AUDIT 20–40). In another study on the same university campus two years later using a cut off of 6 for women and 8 for men showed that 57.8% were risky or harmful drinkers (men: 57.9% women: 57.8%), (Young & Mayson, 2010).

NACADA in Kenya was formed by an Act of Parliament in 2012. The Authority's key attention was to scale down demand, which involved giving information and creating public awareness, life skills, treatment, rehabilitation and psycho-social support to the general public on alcohol abuse and this was to be carried out through policy formulation and capacity building. NACADA, (2009) indicated that alcohol abuse was prevalent among young adults of between 15-29 years old in Kenya. Atwoli, Mungla, Ndung'u, Kinoti, & Ogot (2011) indicated that the prevalence of alcohol abuse among college and university students in Eldoret was high and caused major physical and psychosocial complications in that population. The study went on to state that majority of those abusing alcohol reported serious negative effects, increasing the need for interventions to reduce the risk of dependence and other harmful consequences. Egerton University is yet to have an alcohol abuse policy. Some Kenyan universities have drafted their policies on alcohol abuse. JKUAT (2011) on its policy on alcohol abuse indicated that alcohol was easily available and accessible as demonstrated by the number of alcohol selling points in the community and presence of alcohol during staff and student functions. Chuka University (2013), drafted a policy to manage challenges posed by alcohol and drug abuse in its environs and workplace. The Policy was drafted based on lessons drawn from the guidelines published by NACADA (2009). A baseline survey conducted in June 2010 revealed that 33% of the students abuse alcohol (JKUAT, 2011). The university of Nairobi policy on alcohol and

drug abuse prohibits the use and selling of illicit drugs on its premises (UoN, 2011). Multimedia University College of Kenya (2012), indicated in their alcohol, drug and substance abuse policy that the university seeks to regulate use of alcohol in order to improve a good learning atmosphere while ensuring safety and health of students and staff within the limitations of the law.

### **2.3 Social Demographic Factors and Alcohol Abuse**

NACADA (2004) reveals that there are varied demographic factors as to why the youth engage in alcohol drinking. Hassan (2013) found that there was no difference between the students who were found in the different colleges with respects to age, gender, family structure and part time work. In the study, age of first drink was found to be between 16 years old and above, with the youngest reported age being 7 years. On average, both sexes seem to start abusing alcohol later than the high risk age of 14 years, which is associated with high risk for alcohol abuse and dependence in later life according to studies on sample populations from the USA according to Dewitt (2000) as cited in (Hassan, 2013). A recent systematic review indicated that adolescence alcohol abuse could progress to adulthood habit and it was associated with suicide, car crashes and mental and social complications (McCambridge, 2011).

Other studies have reported early onset of harmful alcohol abuse in early age among adolescents and the associated mental disorders later in life. The consequences of the high rate of alcohol abuse and early age of onset in that large proportion of the respondents indicate a high risk of developing alcohol related disorders in adulthood. Compared with women through out the world, men are more likely to abuse alcohol and cause more problems by doing so (WHO, 2005). This gender gap is one of the few universal gender differences in human social behaviour. It is evident in all areas of the world that societies have long indulged in alcohol

abuse and its effects are important to differentiate, symbolize, and control gender roles (Demers, Room, & Bourgault, 2001). There has been increased concern about alcohol abuse as an aspect of gender roles, because in some society's gender differences in the behaviour have increased. Women now perform male roles due to available job opportunities and this has increased their trend in alcohol abuse (WHO, 2005).

Heavy drinking is associated with displays of masculinity and this may encourage male drinkers to deny or minimize problems resulting from their drinking, or to regard drunken behaviour as normal or permissible. On the other hand, traditions that women do not abuse alcohol have led to women's vulnerability being underestimated or overlooked. However, when women's alcohol abuse or dependence becomes conspicuous, it has often provoked social outrage and the use of punishment or coercion to try to stop such behaviour (Roizen, 1988). Better understanding of gender stereotypes about both men's and women's drinking is essential to reduce the negative effects such stereotypes may have on treatment and prevention of alcohol-related problems.

Sahraian, Sharifian, Omidvar, & Javadpour, (2010) on a study on prevalence of substance abuse among Medical Students in Southern Iran, found that prevalence of alcohol abuse was significantly lower in the married students than in single students and students who lived with their family had lower rate of alcohol abuse. According to Gezahegn & Mitiku, (2014) in a Cross-Sectional Study of alcohol abuse and associated factors among University Students in Ethiopia, married students were more likely to abuse alcohol than those who are single. Data shows that alcohol consumption increases each year a student spends in college (Carter, Brandon & Goldman, 2010). The study would like to find out if this is also the case in Egerton University in Kenyan. Having a job during college is a factor associated with



increased alcohol abuse among university students.

According to Bachman and colleagues, the intensity of part-time jobs negatively affected young people's health behaviours because those who worked more hours in a week were more frequently involved in substance abuse, like cigarettes, alcohol, and marijuana (Bachman et al, 2003). In Kenyan perspective, the study would investigate to know whether University students who have full-time or part-time jobs may be more susceptible to poor health behaviours including alcohol abuse. Lorant, Pablo, Victoria, & William (2013), in a study on Alcohol abuse among university students responsibility for personal troubles, indicated that the Faculty of Engineering and the Faculty of Social Sciences had a more number of drinks per day.

#### **2.4 Symptoms and Signs of Alcohol Abuse**

Students with alcohol use disorder will present with inability to form interpersonal relationships, poor academic results, missing classes, unkempt, misbehaviour, irritability, lack of sleep and tiredness (Fernandez, Perez, Martinez, Bustillo, Barbado, De La Cruz, Diaz, Gutierrez, Delgado, Radondo, Ramon, & Jose, 2009).

#### **2.5 Causes of Alcohol Abuse**

McArdle (2008) indicated that there are complex causes of alcohol abuse with combination of many factors like inability to overcome stress, childhood developmental problems, psychological problems, hereditary and environmental factors. Studies have shown that peer pressure influences individuals to abuse alcohol (Santor, Messervey, & Kusumakar, 2000). Peer pressure is a major factor in the development of risk-taking behaviours like alcohol abuse (Lewis & Lewis, 1984). A study by Borsari and Carey indicated that students join universities

with determination not to abuse alcohol but give in to peer-pressure in order to conform (Borsari & Carey, 2001). Students maintain control of their lifestyles due to lack of authority figures to watch over their decisions (Watson, 2002). The perceived independence may lead to the risk and experimentation of alcohol of which it may result to alcohol abuse.

## **2.6 Consequences of Alcohol Abuse**

Alcohol abuse has been associated with medical conditions that include cancer of the breast, oral cavity, pharynx, larynx, oesophagus, stomach, colon, rectum and the liver cirrhosis (Bagnardi, Blangiardo, & Vecchia, 2001). Moreira et al. (2009) indicated that alcohol abuse is associated with suicide, violence, injuries e.g. motor accidents and self-inflicted injuries (Single, Rem, & Xie, 1999).

Rintaugu, Ngetich & Kamande (2012) in a study found that the outcome of alcohol abuse include misbehaviour at (32.6%), breaking of friendships (29.6%) and poor academic performance (26%). Atwoli et al. (2011) stated that problems associated with alcohol abuse in institutions of higher learning in Kenya include quarrelling, fights, damage to property, disobedience to parents, contracting infections from unprotected sex and unwanted pregnancies. These studies have often been criticized for their methodological limitations in not being able to show any form of temporality or causality.

## **2.7 Treatment of Alcohol Abuse**

Dube, Anda, Felitti , & Croft, (2002) stated that “approaches like contingency management and motivational interviewing are effective means of treating abuse in impulsive people by focusing on positive rewards and redirecting them towards healthier goals. Agostinelli & Grube, (2005) indicated that the family plays an important role in support and

treatment of their child who abuse alcohol.

## **2.8 Prevention of Alcohol Abuse**

Baer (2002) stated that Strategies on personal, social, and environmental factors in universities contribute to the beginning and growth of alcohol abuse is essential for development of programs and that empowering students with social skill would help them to avoid alcohol abuse through giving information about alcohol. He pointed out that measures be put in place to detect and treat those already using alcohol and counselling services offered to those in secondary stage. Furthermore, Parents ought to take care of their daughter or son who has peers who use alcohol. Deterrence programs which include social norms education, use of survey data to counter students' misperceptions of their peers' drinking practices and attitudes about alcohol (Baer, 2002).

## **2.9 Prognosis of Alcohol Abuse**

University students are heavy binge drinkers and are more likely to be diagnosed with alcohol dependence and alcohol abuse. Occasional binge drinkers are more likely to be diagnosed with alcohol use (Courtney & Polich, 2009). This can be replicated among university students.

## **2.10 Theoretical Models**

### **2.10.1 Differential Reinforcement Theory**

Akers (1979) theory of "differential reinforcement" maintains drug use results from the effects of drugs that out-weigh negative ones. When drugs produce undesirable outcomes like throwing up, producing panic, they deliver negative reinforcement. However, they could also return positively reinforcing effects like euphoria, which might outweigh the negative ones. This was especially likely if the individual received social reinforcement from other users, who

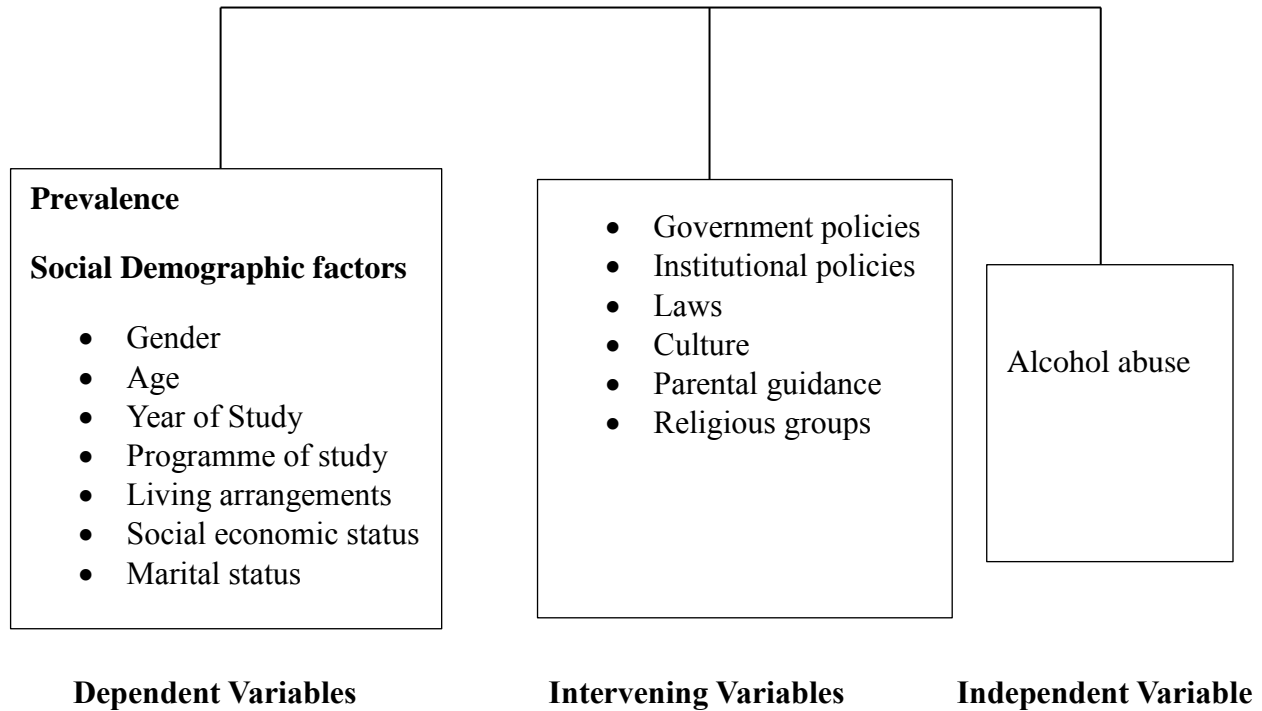
viewed drug use positively. Therefore learning has a great effect on the development of harmful drinking behaviour. People learn how to drink, what to expect from drinking and to use drinking for certain purposes. People who have experienced rules about appropriate drinking learn those rules and rituals (although they may not always use what they have learned). Those who see mostly uncontrolled drinking with the intention of intoxication learn to drink that way. People are also shaped by the consequences of drinking. Human beings continue to behave in certain ways if they get positive consequences for the behaviour. If a person's social group drinks heavily and s/he gets positive feedback from friends for drinking the same way, s/he will be more likely to continue the pattern. If a person gets other rewards from drinking—for example, s/he is more social or less anxious, s/he may also learn to use alcohol as a way of getting that reward and as a way of coping with uncomfortable and painful feelings. These positive consequences may be more emotionally powerful than negative ones like hangovers or family problems. This theory is therefore relevant because it takes into account the factors that can contribute to alcohol abuse and captures the complexities and intricacy of the prevalence of alcohol abuse in that excessive drinking pattern is a learned behaviour which has been reinforced and is also subject to change through relearning and different patterns of reinforcement.

### **2.10.2 Social cognitive theory**

The social cognitive theory explains how people acquire and maintain certain behavioural patterns, while also providing the basis for intervention (Bandura, 1997). Evaluating behavioural change depends on the factors of environment, people and behaviour. Environment refers to the factors that can affect a person's behaviour. There are social and physical environments. Social environment include family members, friends and colleagues. Physical

environment is the size of a room, the ambient temperature or the availability of certain foods. Environment and situation provide the framework for understanding behaviour. The situation refers to the cognitive or mental representations of the environment that may affect a person's behaviour. The situation is a person's perception of the place, time, physical features and activity (Glanz, Rimer, & Lewis, 2002). The three factors of environment, people and behaviour are constantly influencing each other. Behaviour is not simply the result of the environment and the person, just as the environment is not simply the result of the person and behaviour (Glanz, Rimer, & Lewis, 2002). The environment provides models for behaviour through observational learning which occurs when a person watches the actions of another person and the reinforcements that the person receives (Bandura, 2007). The concept of behaviour can be viewed in many ways. Behavioural capability means that if a person is to perform behaviour, he must know what the behaviour is and have the skills to perform it. This theory is relevant because it emphasizes on the social context in which heavy drinking occurs and the various factors which contribute to alcohol abuse which could be seen as a strategy for altering psychological states or coping with problems.

## 2.11 Conceptual Framework



**Figure 1.**

In conclusion regardless of the threats posed by alcohol abuse, prevalence of alcohol abuse among university students in Kenya has not been researched adequately. The importance of these findings lies in the fact that early exposure to alcohol abuse often predicts future alcohol abuse and other psychiatric disorders. In light of this situation and the concern about the alcohol abuse among the students in the university, it is important to gain further insight into the relationship between the prevalence of alcohol abuse and to determine the association between the prevalence of alcohol abuse and socio-demographic variables among Egerton University students. The current study therefore, aimed to determine the prevalence alcohol abuse among Egerton University students in Njoro, Kenya.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Research Design**

This study used a cross sectional research design since the data dealt with the effects of natural occurring phenomena (Tuchman, 1978). The design was also relevant since it entailed the collection of data on more than one case and at a single point in time in order to collect a body of data in connection with two or more variables which would then be examined to detect the patterns of association (Bryman, 2004). This study design was used since it allows two extensive data collection on a large population where direct observation by the researcher is not required. This method therefore was relevant in determining the prevalence of alcohol abuse among Egerton University students.

### **3.2 Study Site Description**

Egerton University is one of the public universities in Kenya with its main campus located in Njoro District, in Nakuru County. Lord Maurice Egerton of Tatton, a British national who settled in Kenya in the 1920s changed this Farm to a learning institution in 1939. The learning institution was upgraded to an Agricultural College offering diploma programmes in 1950. In 1955, Egerton Agricultural College Ordinance was enacted. In 1979, the Government of Kenya and the United States Agency for International Development (USAID) expanded the institution with major funding. In 1986, it was gazetted as a constituent college of the University of Nairobi. In 1987, the institution became a fully-fledged University through an Act of Parliament. Egerton University has four (4) Campuses and one Campus College, The main Campus being Njoro, Nairobi University city campus, Nakuru town campus and finally Baringo University campus. Egerton University contributed in the formation of Chuka, Kisii and Laikipia Universities, which became full-fledged Universities on 8th January 2013, 6th February 2013 and 19th February 2013, respectively. The study was conducted at the Njoro

main campus. The Njoro Campus provided an ideal study location since many faculties and most of the student population resides there.

### 3.3 Study Population

The population of this study were undergraduate students at Egerton University Njoro Kenya as shown in Table 1. The population of the study were undergraduate students in year 1, 2, 3 and 4, both resident and non-resident students. The study population comprises of diverse ethnic background, religion, programmes and social economic status. The total population is 9,588 students of Egerton University main campus.

**Table 1 Distribution of population by year of study**

<b>Gender</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Total</b>
Male	1803	1595	1320	1025	<b>5,743</b>
Female	1209	1109	877	650	3845
<b>Total</b>	<b>3012</b>	<b>2704</b>	<b>2197</b>	<b>1675</b>	<b>9588</b>

#### 3.3.1 Inclusion Criteria

The undergraduate students of Egerton University, Njoro Campus who include first, second, third and fourth years, who are both resident and non-resident. Consent was obtained from the participants.

#### 3.3.2 Exclusion Criteria

Post graduate students. Some post graduate students are lecturers while majority of others are working and these are mature people. Their time table was different to that of undergraduates hence the reason for not including them.



### 3.4 Sampling Method (Recruitment and Consenting Procedure)

Purposive and stratified random sampling techniques were used in the study. The institution for the study (Egerton University) was purposively selected because it was convenient for the researcher and inadequate research has been done on alcohol abuse. The study sample was selected using stratified random sampling. Using Steins method the sample size of the students was determined. Stephan, (1945) suggested Steins method which is based on the use of preliminary sample (Nassiuma, 2000). Therefore the total sample size estimation was a total of 355 respondents. The study sample was selected using stratified random sampling technique based on records of those students in session at the Registrar Academic Affairs office. Students who consented were stratified into year of their study then proportionately sampled them according to their gender.

### 3.5 Sample Size Estimation

Mugenda & Mugenda, (1999) stated that the sample size depends upon the purpose of the study and the nature of the population under scrutiny. Using Steins method the sample size of the students was determined. Stephan, (1945) suggested Steins method which is based on the use of preliminary sample (Nassiuma, 2000). Steins method is a formula with values when commuted; one would arrive at the students sample size as follows:

#### Steins Method (Formula)

$$n = \frac{4N t_{\alpha/2}^2 s_1^2}{NL_o^2 + 4 t_{\alpha/2}^2 s_1^2}$$

Where;

N= 9,588 N represents the total population of Egerton University students.

$$t_a^2/2=3.8416$$

$$S1^2=6$$

$$L_0^2 = 0.25$$

Hence the sample size was obtained which is  $n = 355$

$n$  represents the sample size obtained after the commutation of the above values.

Therefore the total sample size estimation will be a total of 355 respondents as shown in Table 2.

**Table 2 Distribution of sample size by year of study**

<b>Gender</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Total</b>
Male	67	60	48	38	<b>213</b>
Female	45	41	32	24	142
<b>Total</b>	<b>112</b>	<b>101</b>	<b>80</b>	<b>62</b>	<b>355</b>

### **3.6 Quality Control or Assurance**

To ensure that the quality and integrity of the research is upheld, a pilot study of the questionnaire was conducted to determine the problems that may be expected during data collection and how to overcome them. It also helped determine whether the tool is appropriate for this study group and that it will capture every aspect of the study.

### **3.7 Data Collection Procedure**

Ethical approval was sought from KNH/UON Ethics committee while permission was got from the VC Egerton University and from other authorities in the institution. The researcher then organized to meet all the sampled students who met the criteria for the study to be briefed on the nature of the study. Those willing to participate completed the questionnaires which were self-administered. The researcher then collected the completed questionnaire. Collected data

was coded, cleaned and stored in a safe place before entry into computer for analysis.

### **3.8 Instruments**

Alcohol Use Disorders Identification Test (AUDIT) questionnaire was used to collect data relating to the prevalence of alcohol abuse. The AUDIT instrument was developed by W.H.O and it is a Self-Administered Pencil and Paper Alcohol Screening Questionnaires. The AUDIT is a 10-question survey that included questions about the quantity and frequency of current drinking and drinking history. It is considered effective in identifying problem of alcohol use as it has good sensitivity and specificity for detecting hazardous and harmful drinking and has been validated for use in a wide range of settings and populations (Coulton, Drummond, James, Godfrey, Bland, Parrot, Peters, & Stepwise Research Team, 2006). The questionnaire for the study contained 2 sections. Section A was used to collect socio-demographic information for the students. It had 7 items which included year of study, age, gender, residence, level of parent's education, social and economic status. Section B contained a series of 10 AUDIT questions that include 3 questions on alcohol consumption, 4 questions on alcohol dependence symptoms, and 3 questions about alcohol-related problems. A cut-off score of 6 - 8 is recommended for at-risk drinking in college students and young adults. The responses given by respondents for questions 1-10 were scored between 1 to 4 points which were then added up to determine if the individual has alcohol abuse. A total score of 8 or more indicated harmful drinking behaviour.

**Table 3: AUDIT Interpretation**

<b>Guidelines for Interpretation of AUDIT</b>	
<b>Score</b>	<b>Degree of problems related to Alcohol Abuse</b>
0-7	Low Risk
8-15	Risky and or Hazardous
16-19	High Risk or Harmful
20 and above	High Risk or Dependent

### **3.9 Variables**

Independent variable: prevalence and Social demographic variables.

Dependent variables: alcohol abuse.

### **3.10 Data Management and Analysis**

Data collected was cleaned and stored in both soft and hard copies. Data were password protected, available only to the researcher. Data gathered was analysed quantitatively using both descriptive and inferential statistics. Descriptive statistics namely frequencies, percentages was used to analyse the data. Frequency tables represent the most commonly used method in presenting data in descriptive research (Kathuri & Pals, 1993). Associations between selected variables were tested using Chi square. The test of significance was set at  $\alpha = 0.05$  significance level. The analysis was done using Statistical Package for Social Sciences (SPSS) version 18.0.

### **3.11 Ethical Procedures**

Permission to carry out the research was sought from National Council of Science and Technology and Innovation (NACOSTI), the Egerton university authorities and the participants. Participation was voluntary. It was clearly explained that the purpose of the research was to collect data for the purpose of the study. Cognizance was taken of the fact that

the study may have been investigating sensitive issues likely to elicit hostility, psychological effects, and insecurity concerns from the participants. Confidentiality and privacy was therefore observed to ensure the subjects' interests were safeguarded. The subjects of study were protected from harm particularly on information which would have been injurious. Reassurance was given to the participants that any information given would be protected and safeguarded. Information given was treated with confidentiality and participants did not use their names but information given was coded and stored in a safe place. The participants were able to make informed decisions then debriefing was done and those participants who were found to have been abusing alcohol benefited by being referred for counselling

## CHAPTER FOUR: RESULTS

### 4.1 Introduction

This chapter presents the results of the findings in relation to the objectives of the study. The presentation follows the order by which the specific objectives of the study are stated. After the questionnaires were collected from the field, the data was analysed, summarized and presented in form of tables and graphs to reflect statistics that accompany explanations for better understanding. The study assessed the prevalence of alcohol abuse among Egerton University students in Njoro, Kenya, with a view of coming up with intervention measures to improve, promote and enhance mental health of students at Egerton University. All respondents were reached and there was 100 % return rate as indicated in table 4 below.

**Table 4: Response Return Rate**

Respondents	Administered	Returned	Percentage return rate
Male	213	213	100
Female	142	142	100
<b>TOTAL</b>	355	355	100%

Kathuri (2007) indicated that a 55% return rate is adequate enough for a study hence the total return rate of 100% respondents is excellent for the study.

### 4.2 Demographic Characteristics of Participants

While the study aimed at determining the socio-demographic factors associated with the prevalence of alcohol abuse among Egerton University students, it was important to get the general information on the demographic characteristics of the participants as shown in Table 5 below.

**Table 5: Demographic Information**

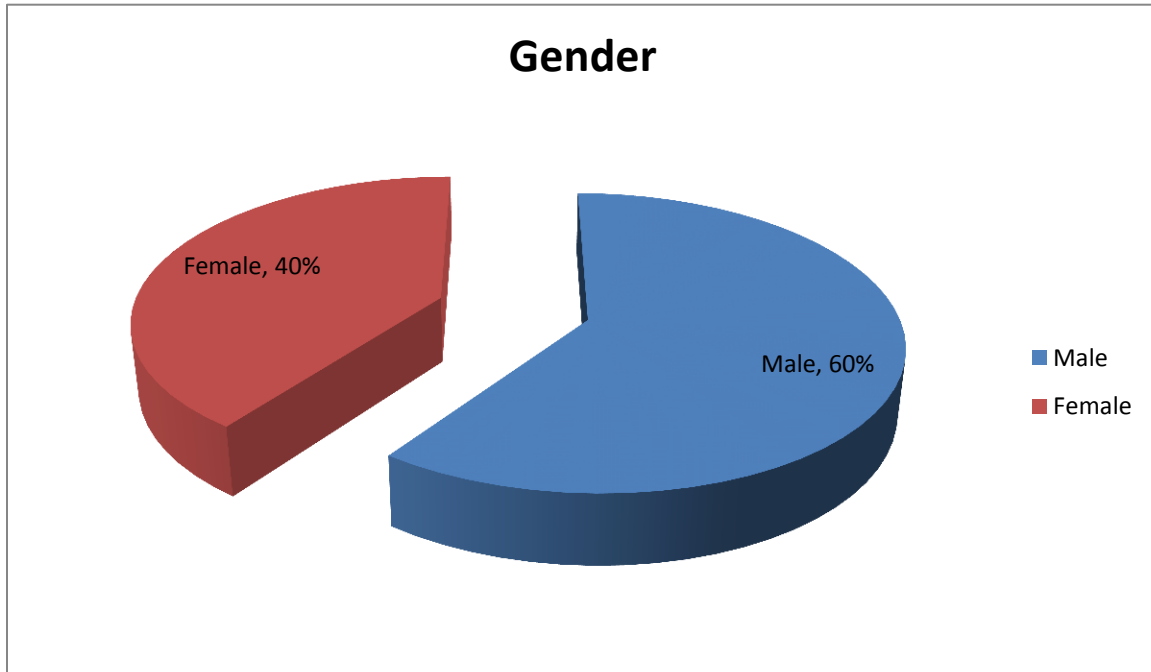
Variable	Frequency	Percentages
<b>Gender</b>		
Male	213	60.0
Female	142	40.0
<b>Age</b>		
16-18	30	8.5
19-24	299	84.2
Over 24	26	7.3
<b>Year of study</b>		
1 <sup>st</sup> year	112	31.5
2 <sup>nd</sup> year	101	28.5
3 <sup>rd</sup> year	80	22.5
4 <sup>th</sup> year	62	17.5
<b>Programme</b>		
JAB sponsored	224	63.1
Self-sponsored	131	36.9
<b>Place of residence</b>		
Resident	225	63.4
Non Resident	130	36.6
<b>Living arrangements - with whom</b>		
room mates	227	77.6
Parents	14	3.9
Spouse	24	6.8
Others	45	12.7
<b>Family's socioeconomic status</b>		
High	14	3.9
Middle	273	76.9
Low	68	19.2
<b>Marital status</b>		
Married	37	10.4
Single	312	87.9
Divorced	6	2.1

N.B: JAB- Joint Admission Board.      SSP- Self Sponsored Students

The participants included 112 students in year 1, 101 students in year 2, 80 students in year 3 and 162 students in year 4 from Egerton University. The study examined the following demographic characteristics of the respondents summarized in table 5.

#### 4.2.1 Gender of Respondents

The researcher first sought to establish the gender of the respondents for the study. Gender of the respondents determined how certain issues affecting different gender of the students are appreciated by the school administration. The distribution of the respondents by gender shown in figure 2 below was that 40% respondents were females, while 60% were male.

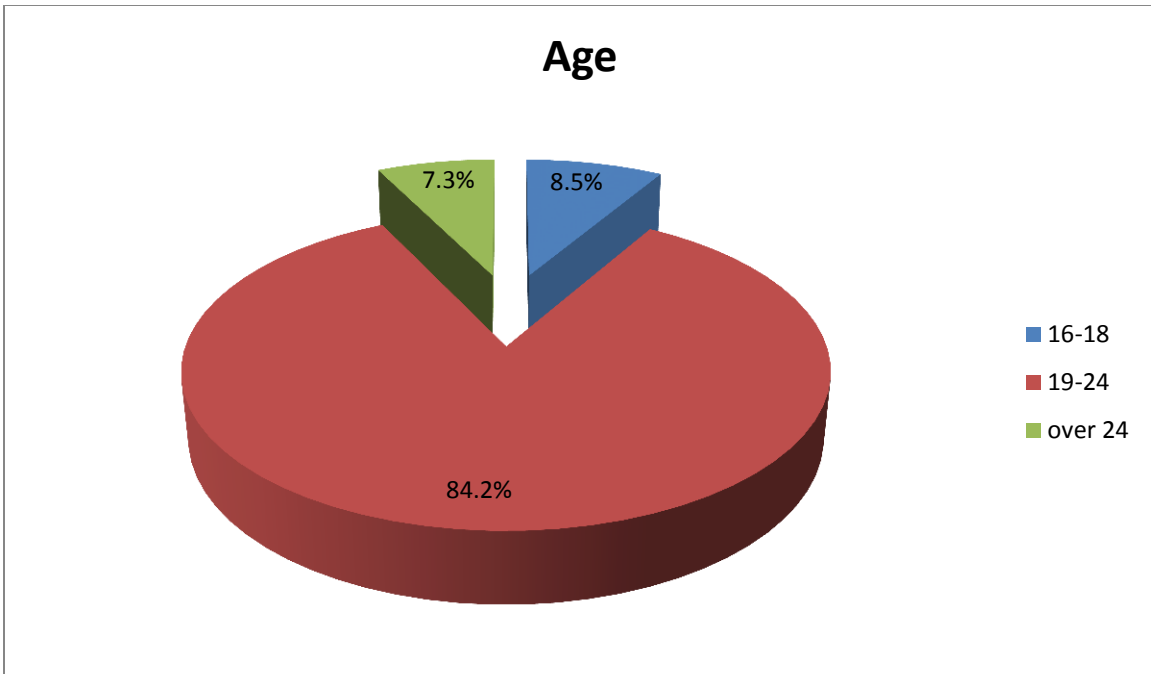


**Figure 2: Gender Distribution**

#### 4.2.2 Age of the Respondents

In the analysis of the age of respondents, it reveals that majority of the students are between 19 - 24 years at 84.2% as shown in figure 3 below. This was possible since majority of university students in Kenya fall within this age bracket having joined at 19 or 20 years old and complete at 24years of age.

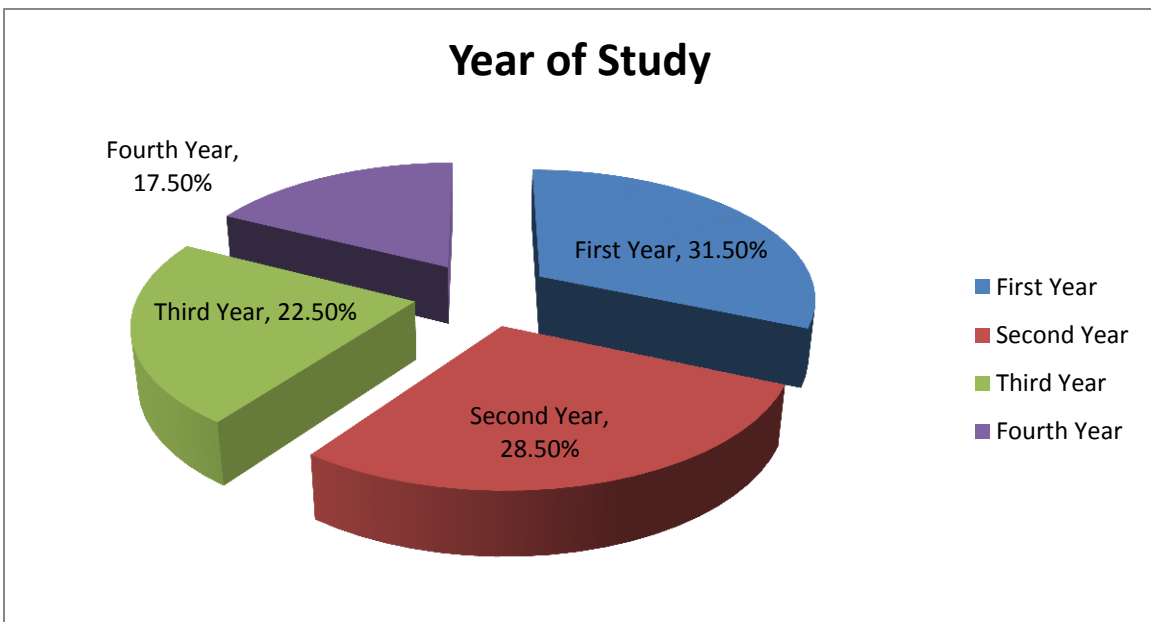




**Figure 3: Age**

**4.2.3 Year of study**

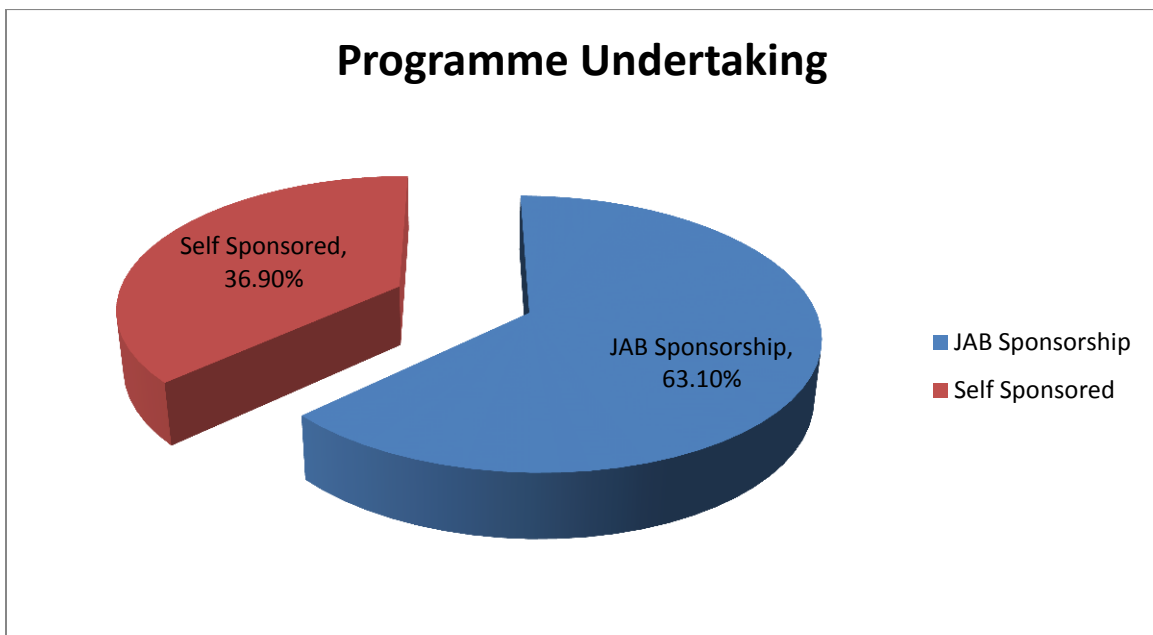
Figure 4 below shows that the 31.5 % of the respondents were in first year.



**Figure 4: Year of Study**

#### 4.2.4 Programme undertaking

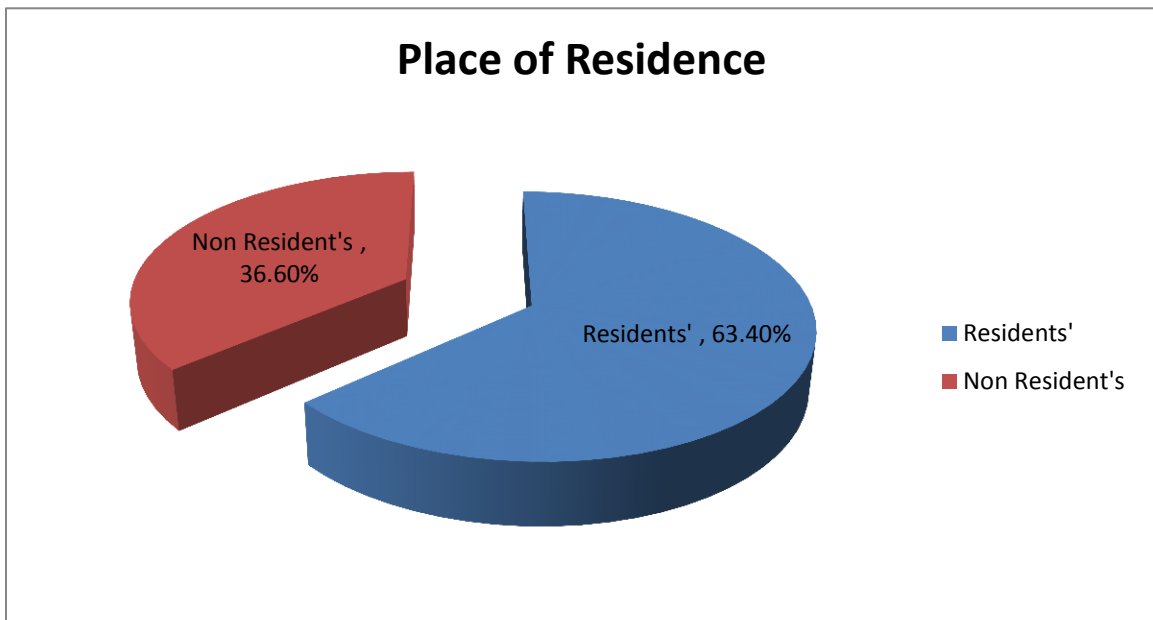
Figure 5 below shows that majority (63.1 %) of the respondents were under JAB sponsorship.



**Figure 5: Programme Undertaking**

#### 4.2.5 Place of residence

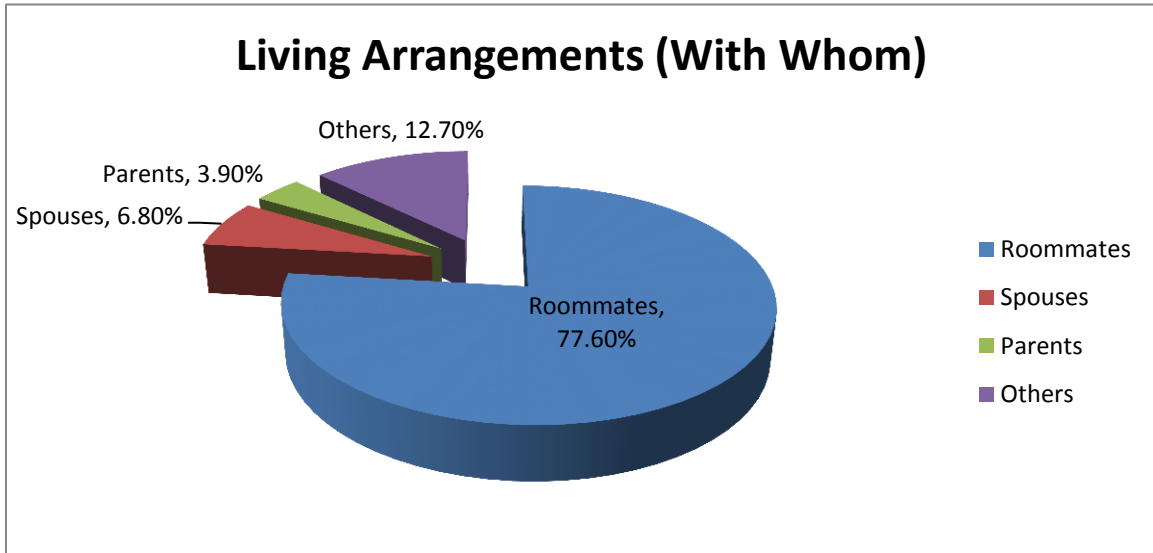
Figure 6 below indicate that a majority (63.4%) of the respondents resided in school.



**Figure 6: Place of Residence**

#### 4.2.6 Living arrangements - with whom

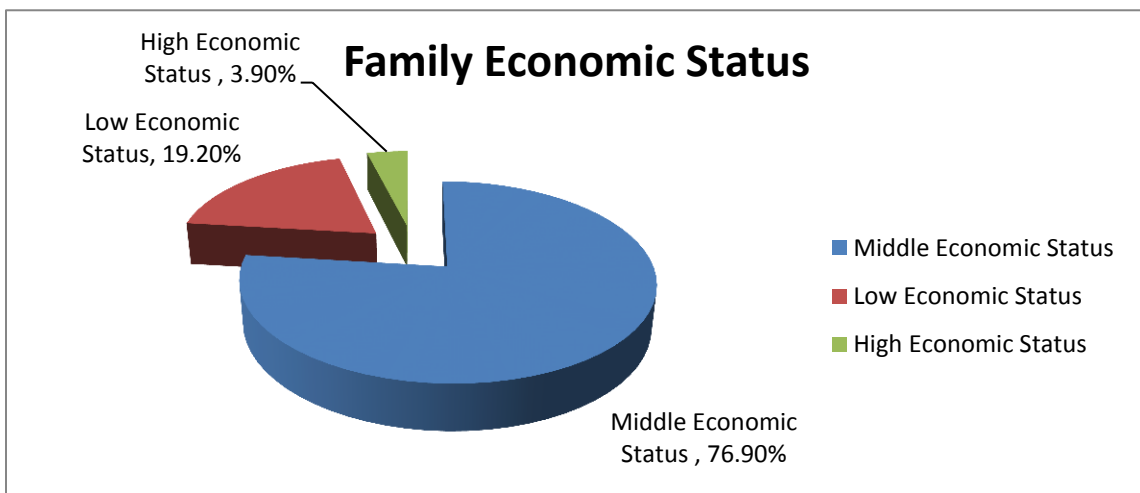
Figure 7 indicate that a majority (77.6%) of the respondents resided with their room-mates. with the least being those living with their parents as shown in figure 7 below.



**Figure 7: Living Arrangements (With Whom)**

#### 4.2.7 Family's economic status

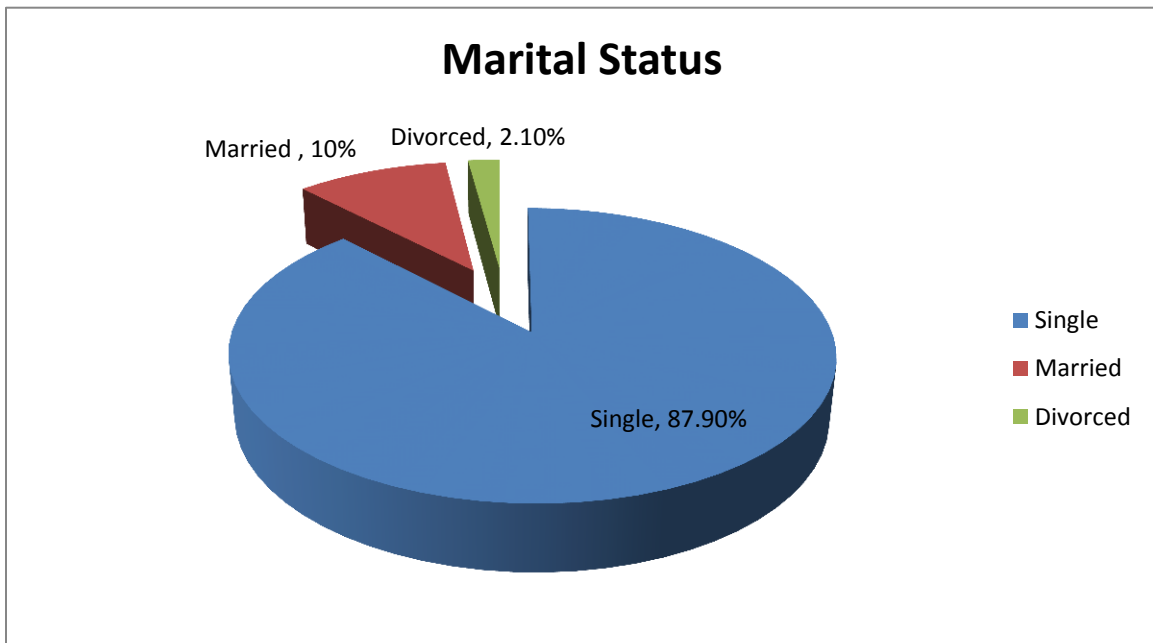
Figure 8 indicates that the majority of the students are from the middle economic status at 76.9% as shown in figure 8 below.



**Figure 8: Family's Economic Status**

#### 4.2.8 Marital status

The majority (87.9%) of the respondents were single as shown in figure 9 below.

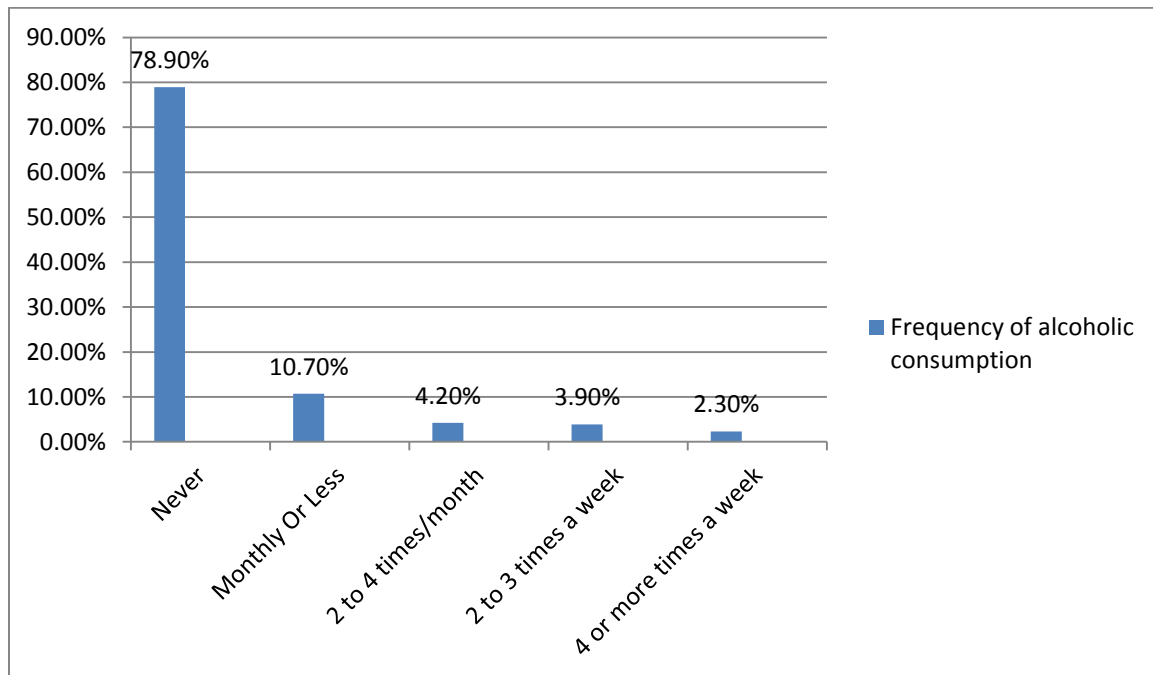


**Figure 9: Marital Status**

### 4.3 Prevalence of Alcohol Abuse Among students.

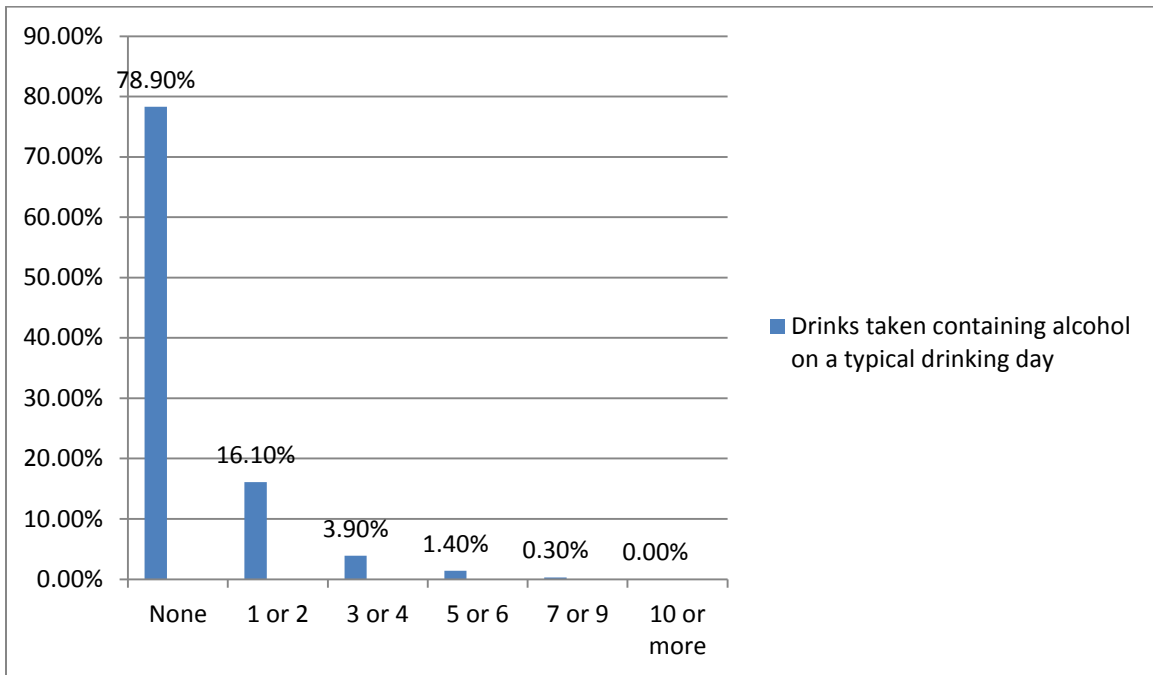
Objective one of the study sought to examine the prevalence of alcohol abuse among Egerton university students. To determine the level of alcohol the respondents used; AUDIT was used to score whether the respondents had a problem with alcohol use.

Figure 10 below shows that majority of the respondents (78.9%) claimed to have never taken a drink containing alcohol.



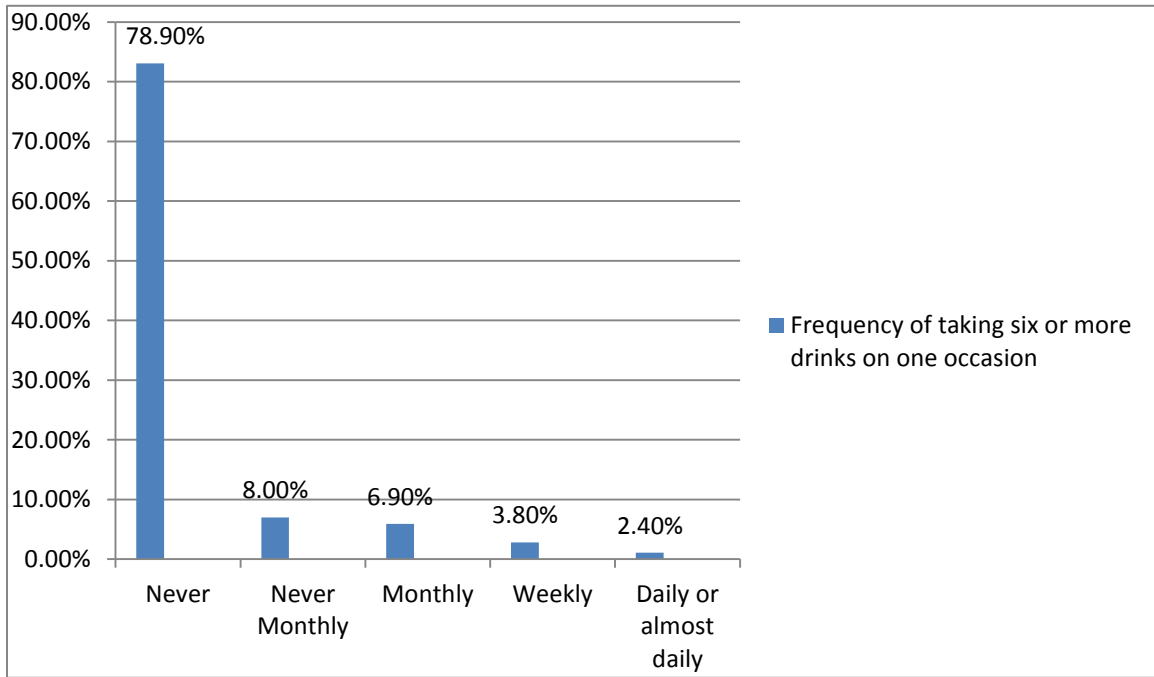
**Figure 10: Frequency of Alcoholic Drink Consumption**

Figure 11 below indicates that majority of the respondents (78.9%) never took alcoholic drinks on a typical day.



**Figure 11: Drinks taken containing alcohol on a typical drinking day.**

Figure 12 below shows that majority (78.9%) of the respondents have never taken six or more drinks on one occasion.

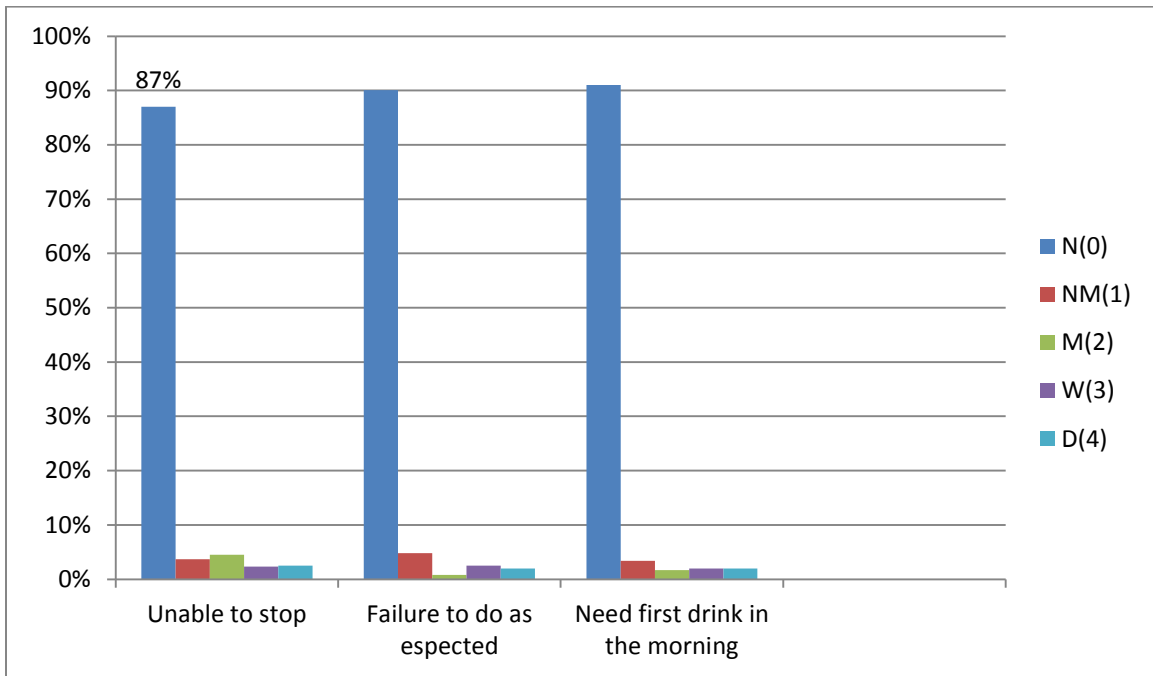


**Figure 12: Frequency of taking six or more drinks on one occasion**



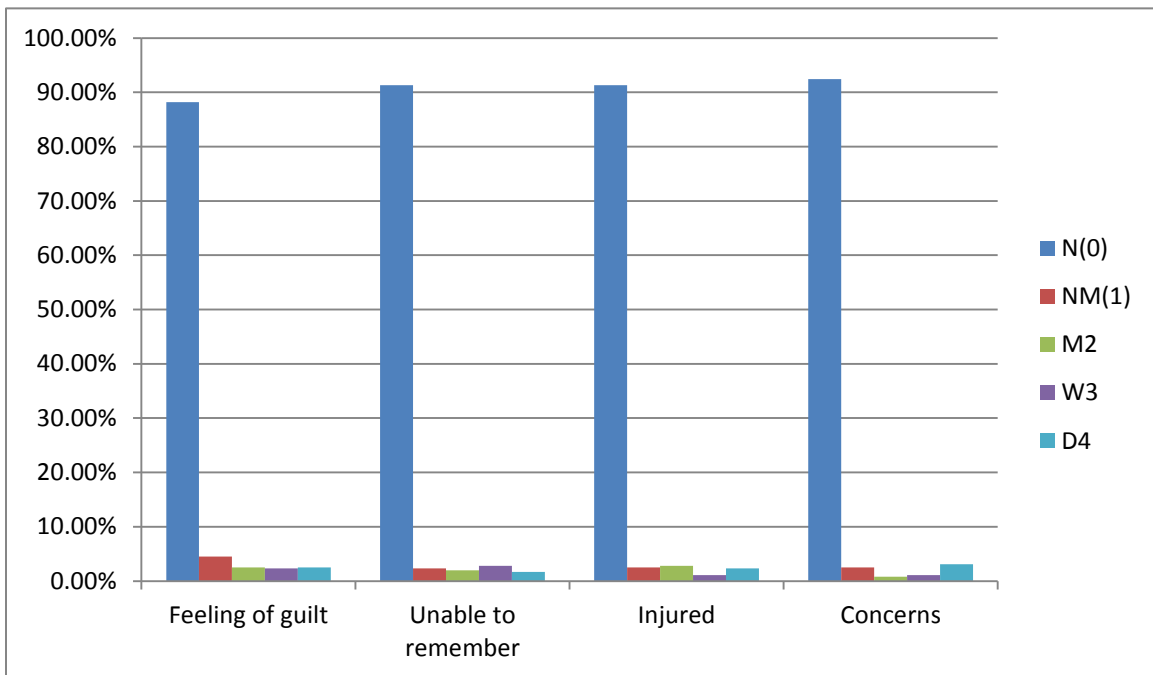
Figure 13 shows that a majority 87.0% of the respondents during the last one year have never felt they were unable to stop drinking once they started as shown in figure 13 below.

Key: N=Never, NM=Never monthly, M=Monthly, W=Weekly, D/AD =Daily or almost daily



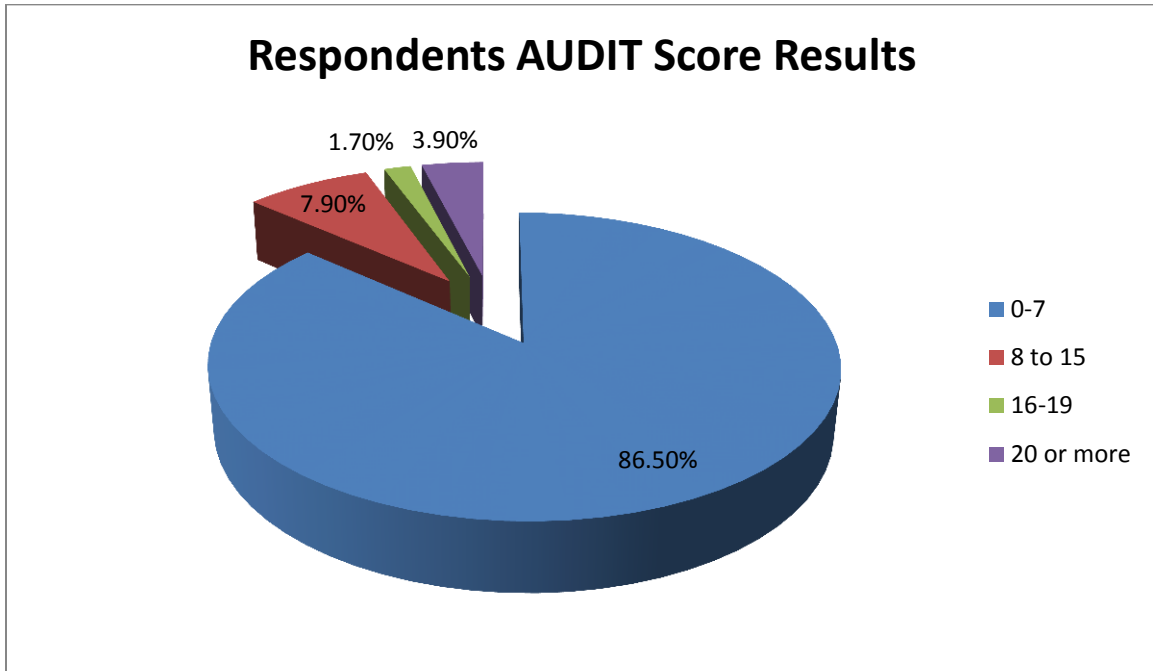
**Figure 13 Alcohol Drinking Behaviour**

Figure 14 below shows that (88.2%) of the respondents have never had a feeling of guilt or remorse after drinking in the last year.



**Figure 14: Consequences**

As shown in Figure 15 below most of the respondents (86.5%) were at low risk level of alcohol abuse with scores of between 0-7 in the AUDIT.



**Figure 15: Respondent AUDIT Score results**

#### 4.4 Association between Socio Demographic Factors and Prevalence of Alcohol Abuse among Egerton University Students

The second objective examined whether there was a significant association between socio-demographic factors and prevalence of alcohol abuse among Egerton university students. The findings are shown in Table 6.

**Table 6: Association between Socio Demographic Factors and Prevalence of Alcohol Abuse among Egerton University Students**

Factors	Components	n=355	Prevalence	Test statistic	Df	P Value
Gender	Male	213	56(26.3%)	7.692	4	0.101
	Female	142	21(14.8%)			
Age	16-18 Years	30	2(6.7%)	14.172	8	0.086
	19-24 Years	299	66(22.1%)			
	Over 24 years	26	9(34.6%)			
Year of Study	1 <sup>st</sup>	112	16(14.3%)	32.331	12	0.001
	2 <sup>nd</sup>	101	27(26.7%)			
	3 <sup>rd</sup>	80	21(26.2%)			
	4 <sup>th</sup>	62	13(21.0%)			
Programme of Study	JAB	224	43(19.2%)	5.090	4	0.282
	Self-Sponsorship	131	34(26.0%)			
Living Arrangements	Residence	225	41(18.2%)	7.132	4	0.126
	Non Residence	130	36(27.7%)			
Living Arrangements (With Whom)	Room Mates	272	48(17.6%)	43.404	12	0.000
	Parents	14	2(14.3%)			
	Spouse	24	13(54.2%)			
	Others	45	14 (37.8%)			
Family Economic Status	High	14	8(57.1%)	37.830	8	0.000
	Middle	273	56 (20.1)			
	Low	68	14 (20.6%)			
Marital Status	Married	37	16 (43.2%)	54.994	8	0.000
	Single	312	57 (18.3%)			
	Divorced	6	4 (66.7%)			

The difference in gender had a  $p > 0.05$  (p value is 0.101) hence, meaning that gender difference does not have any significant value with reference of alcohol abuse among the student. On age  $p > 0.05$  (p value is 0.086). Hence age of the student did not have any

significant association with drinking of alcohol. Furthermore on association of year of study and alcohol abuse  $p < 0.05$  (p value is 0.001) meaning that there is significant difference between year of study and alcohol abuse, the 2<sup>nd</sup> year have association with prevalence of alcohol abuse than other students in the year of study. The students from high economic status contributed more to association of prevalence of alcohol abuse than the low and middle classes. In Marital status, the divorced contributed to the association of prevalence of alcohol abuse at 66.7% than the single and the married. Those with spouses contributed more with the prevalence of alcohol abuse at 54.2% than those living with their parents, room-mates and others. Moreover, the programme of study that the students were undertaking did not have any significant association with drinking of alcohol ( $p > 0.05$  (p value is 0.282)). Association of living arrangements and how often the student had a drink containing alcohol showed no significant association at  $p > 0.05$  (p value is 0.126), family's economic status was significantly associated with alcohol abuse ( $p < 0.000$ ) and finally on marital status and alcohol consumption indicated  $p < 0.05$  (p value is 0.000) .This means that there is significance difference between marital status and alcohol abuse.

## CHAPTER FIVE: DISCUSSION

### 5.1 Introduction

This chapter presents the discussion in relation to the objectives of the study. The presentation follows the order by which the specific objectives of the study are stated

### 5.2 Prevalence of alcohol abuse

The prevalence of alcohol abuse was measured by alcohol consumption indicators. The study found that 21.1% had taken alcohol drink on monthly or less with 16.9% confirming to have taken 6 or more drinks in one occasion. This implies that the prevalence of alcohol abuse among Egerton university students is 21.1% and that most of the students do not abuse alcohol as many could have expected but also some of students are on high risk as shown by the findings which indicated that 7.9% scored between 8-15 indicating risky level, 1.7% scored between 16-19 showing harmful level and 3.9% scored between 20 and above which indicate a high risk and definite harm of alcohol abuse. The rates of the prevalence of alcohol abuse among Egerton University students, indicates that it is on the lower level. In line with this study was the study by NACADA (2007), which found the prevalence of current alcohol abuse of the general population to be about 13%. The low prevalence in the current study could be attributed to government's reinforcement of rules and regulations governing use of alcohol and creation of alcohol abuse awareness by the Egerton University counselling department. In contrast, most studies found high prevalence of alcohol abuse among university students for example a baseline survey conducted in June 2010 revealed that 33% of the student's abuse alcohol (JKUAT, 2011). In addition a South African study found an alcohol abuse prevalence rate of 39.1% (Madu & Matla, 2003). Odek-Ogunde, M., & Pande-Leak, D, (1999) reported highest rates of alcohol abuse among students at a Kenyan private university at 84%. In Malawi, the prevalence of alcohol abuse among university students was 54.1 % (Zverev, 2008). Ethiopia indicated that alcohol was most used by university students at 50.2% (Gezahegn & Mitiku, 2014). Gezahegn & Mitiku, (2015) found a prevalence rate of 50.2% at Hamaraya University in Ethiopia and 56.7% at Addis Ababa (Eshetu & Gedif, 2006). A study done among college students in Eldoret revealed a prevalence rate of 51.9%. The differences noted in the prevalence rates could have been due to differences in instruments used which in this study was the AUDIT whereas in the other studies they used CAGE.

### **5.3 Association between the Prevalence of Alcohol Abuse and Socio Demographic characteristics**

The study found a significant association between the prevalence of alcohol abuse and the year of study, marital status, family's economic status and the living arrangements (with whom).

This therefore implies that there is a great association between some demographic factors and the prevalence of alcohol abuse. The association between the year of study and the prevalence of alcohol abuse could be attributed to environmental adjustment and the new found freedom from home as well as exploration experience and society acceptability to take alcohol. This implies that there is a need to create awareness through giving information and education on alcohol abuse as many students during second year of study increase use of alcohol intake thus need to continue holding talks not only during orientation. The study also shows that by the fourth year majority of the student who abuse alcohol could have dropped from university.

The study also found an association between the prevalence of alcohol abuse and marital status. The students who were married abused alcohol more than those who were single this could be due to influence from the spouses, the ability to afford alcohol as they could be due to having a source of income or stress that come with multi-tasking experience and the feeling that they are stable and stressed. This finding is supported by Gezahegn & Mitiku, (2014) who in a Cross-Sectional Study of alcohol use and associated factors among University Students in Ethiopia, found that married students were more likely to use alcohol. In contrast Sahraian *et al*, (2010) in a study of prevalence of alcohol abuse among the Medical Students in Southern Iran, indicated that prevalence of alcohol use was significantly lower in the married students than in single students and students who lived with their family had lower rate of alcohol abuse. According to Hassan (2013) the percentage of single students that use alcoholic drink was significantly higher than those that are married. This shows the need to also target those students who are married and those who are divorced by the counselling team as the study shows that they are more predisposed to alcohol abuse and might be are not benefit with the talks and programmes that are given to the other students or they are thought it's alright for them to drink.

The study further found a significant association between the prevalence of alcohol use and the family economic status. The middle income students want to gain status and therefore associate alcohol use with status and also university drinkers reinforce students' expectation that alcohol is a necessary ingredient for social success. According to Karama, (2007) alcohol abuse was related to high socioeconomic status and living with the family. This study shows the need for the students to be educated on issues related to self-esteem and social status and its association with alcohol use.

However the study found no association between ages, place of residence, programme of study and the prevalence of alcohol abuse. This could be because the students share the same demographic factors of age, place of residents and programme of study. In agreement Hassan, (2013) who found that there is no difference between the students who were found in the various colleges with regards to age, gender and place of residence. In contrast Hassan, (2013) found that there is no difference between the students who were found in the various colleges with regards to year of study.

#### **5.4 Conclusions**

The study was successful in addressing its objectives. Given the foregoing, the study arrived at the following conclusions:

The prevalence of alcohol abuse among Egerton University students is low at 21.1% as compared to other findings as in the foregoing discussion. However, there is evidence that some of the students are at high risk of harmful alcohol abuse.

There is a significant association between the year of study of the students, marital status, family's economic status and the living arrangements (with whom) and the prevalence of alcohol abuse. There is no significant association between the age of the students, the programme of study undertaken and place of residence and prevalence of alcohol abuse. However, high significant association was found among the middle income, divorced, living with spouses, and finally being on second year.



## **5.5 Recommendations**

The following recommendations emanated from the analysis results of the study:

1. Detection of the students at risk and remedial measures to be undertaken in university; restricting availability of alcohol around the learning institution; sensitising lectures and fellow students to detect problems among their colleagues
2. The government should reinforce the regulation of the sale of alcohol through licensing, packaging, pricing, restricting the age of consumers and regulating opening hours for the selling points. This will ensure that the selling points are located away from university premises, Small portable packages are abolished and consumers below the age of 18 are barred from accessing to alcohol.
3. The university management and student counsellors team needs to strengthen more the orientation programmes and devise group or individual activities that address the various social demographic factors associated with alcohol abuse among university students like peer group influence, economic status , marital status, living arrangements, self-esteem and freedom among others.

## **5.6 Suggestion for Further Research**

1. From the research findings and conclusions the researcher recommends a similar study targeting all students in public universities in Kenya.

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## **APPENDICES**

### **Appendix A**

#### **Consent Explanation/Consent to Participate in Research**

##### **Part I: Information Sheet**

###### **Introduction**

I am Richard K. Boitt a post graduate student at the University of Nairobi. I am doing a research on the prevalence of alcohol abuse among Egerton university students which is a common phenomenon among University students. I am going to give you information and invite you to be part of this research. You do not have to decide today whether or not you will participate in the research. Before you decide, you can talk to anyone you feel comfortable with about the research. This consent form may contain words that you do not understand. Please ask me to stop as we go through the information and I will take time to explain. If you have questions later, you can ask them of me.

###### **Purpose of the Study**

Alcohol abuse in the society has generally increased and has contributed to ill health of the people who abuse it. This research study therefore aims to find out the prevalence of alcohol abuse among Egerton University students. We want to find ways to stop this from happening. We believe that you can help us by telling us what you know both about alcohol abuse and how prevalent it is among students.

###### **Type of Research Intervention**

This research will involve your participation in a self-administered questionnaire that will take about one hour.



## **Participant Selection**

You are being invited to take part in this research because we feel that your experience as a student at Egerton University can contribute much to our understanding and knowledge of alcohol abuse.

## **Voluntary Participation**

Your participation in this research is entirely voluntary. It is your choice whether to participate or not. If you choose not to participate, no one will penalize you.

## **Procedures**

A. We are asking you to help us learn more about alcohol abuse in your University. We are inviting you to take part in this research. If you accept, you will be asked to fill a self-administered questionnaire.

B. Please fill out the self-administered questionnaire which will be provided and collected by the researcher. You may answer the questionnaire yourself or seek assistance from the researcher if need be. If you do not wish to answer any of the questions included in the questionnaire, you may skip them and move on to the next question. The information recorded is confidential, your name is not being included on the forms, only a number will identify you, and no one else except the researcher.

## **Duration**

The research takes place within one month in total.

## **Potential Risks**

We are asking you to share with us some very personal and confidential information and you may feel uncomfortable talking about some of the topics. You do not have to answer any question if you

don't wish to do so and that is also fine. You do not have to give us any reason for not responding to any question.

### **Benefits**

There will be no direct benefit to you, but your participation is likely to help us find out more about how to prevent alcohol abuse. But those with serious alcohol abuse may be referred for counselling on willing basis.

### **Reimbursements**

You will not be provided any incentive to take part in the research.

### **Confidentiality**

The research being done in your university may draw some attention and if you participate, you may be asked questions by other people in the university. We will not be sharing information about you to anyone outside of the research team. The information that we collect from this research will be kept private. Any information about you will have a number on it instead of your name. Only the researcher will know what your number is and we will lock that information up with a lock and key. It will not be shared with anyone.

### **Sharing the Results**

Nothing that you tell us today will be shared with anybody outside the research team, and nothing will be attributed to you by name. The results will be presented for the purpose of the research.

### **Right to Refuse or Withdraw**

You do not have to take part in this research if you do not wish to do so, and choosing to participate will not affect your studies in any way. You may stop participating in the research at any time that

you wish without your studies being affected.

### **Who to Contact**

If you have any questions, you can ask now to the researcher or later. If you wish to ask questions later, you may contact any of the following: This research has been approved by KNH/UON-ERC; for any queries contact the Chairperson on Tel. No. +2542726300 Ext 44102. If you have any questions or concerns about this research, you can contact the researcher Richard Boitt on 0725692012.

This proposal has been reviewed and approved by the KNH/UON-ERC, which is a committee whose task it is to make sure that research participants are protected from harm.

**Part II: Certificate of Consent**

I have been invited to participate in research about prevalence of alcohol abuse among Egerton University students.

I have read the foregoing information. I have had the opportunity to ask questions about it and any questions I have been asked have been answered to my satisfaction. I consent voluntarily to be a participant in this study

Print Name of Participant \_\_\_\_\_

Signature of Participant \_\_\_\_\_

Date \_\_\_\_\_

Day/month/year

Statement by the researcher/person taking consent

I have accurately read out the information sheet to the potential participant, and to the best of my ability made sure that the participant understands what will be done.

I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

A copy of this ICF has been provided to the participant.

Name of Researcher taking the consent \_\_\_\_\_

Signature of the Researcher taking the consent \_\_\_\_\_

Date \_\_\_\_\_

Day/month/year

## Appendix B

### Student Questionnaire

This is a questionnaire seeking demographic information. Your cooperation in completing these questionnaires is much appreciated. Please tick in appropriate box.

#### Section 1: Demographic Information

1. What is your gender?	Male	
	Female	

2. What is your age?	16-18 yrs	
	19-24yrs	
	Over 24yrs	

3. What is your year of study?			
1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year

4. What programme of study are you undertaking?	JAB sponsored	
	Self-sponsored	

5. What are your living arrangements?	Where	Residence	
		None-residence	
	With whom	Roommates	
		Parents	
		Spouse	
		Others	

6. What is your family's social economic status?	High	
	Middle	
	Low	

7. What is your marital status?			
Married	Single	Widowed	Divorced

## Appendix - C

### Alcohol Use Disorders Identification Test (AUDIT)

These questions will assist us get some information necessary for our research on alcohol abuse.

It is a tool used to assess and rate alcohol abuse among people.

You are therefore requested to answer the following questions from the past one year.

### Alcohol Consumption

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

Never (0) [ ]      Monthly or less (1) [ ]      2 to 3 times a week (3) [ ]

2 to 4 times/month (2) [ ]      4 or more times a week (4) [ ]

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

None (0) [ ]      1 or 2 (1) [ ]      3 or 4 (2) [ ]

5 or 6 (3) [ ]      7 or 9 (4) [ ]      10 or more (5) [ ]

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

Never (0) [ ]      Less than monthly (1) [ ]      Monthly (2) [ ]      Weekly (3) [ ]

Daily or almost daily (4) [ ]

4. How often during the last year have you found that you were unable to stop drinking once you had started?

Never (0) [ ]

Less than monthly (1) [ ]

Monthly (2) [ ]

Weekly (3) [ ]

Daily or almost daily (4) [ ]

### Alcohol Drinking Behaviour and Dependence

Statement	N(0)	NM(1)	M(2)	W (3)	D(4)
4. How often during the last year have you found that you were unable to stop drinking once you started					
5. How often during the last year have you failed to do what was normally expected form you because of drinking					
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					

### Consequences

Statement	N(0)	NM(1)	M(2)	W (3)	D(4)
7.How often during the last year have you had a feeling of guilt or remorse after drinking					
8. How often during the last year have you been unable to remember what happened the night before because you had been drinking					
9. Have you or someone else been injured as a result of your drinking					
10. Has a relative, friend, or a health worker been concerned about your drinking or suggested you cut down?					

## Appendix - D

### Work Plan

Activity	2014		2015					2016			
	Feb-Apr	May-Dec	Jan-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Dec	Jan-Mar	May	Jun	Jul
Formulate and clarify research topic											
Read literature											
Define objectives clearly and finalize objectives											
Proposal preparation											
Develop questionnaire											
Defence of research proposal to the department of Psychiatry											
Submission of research proposal to KNH/UON/ERC											
Data Collection											
Data Analysis and drafts preparation											
Submission of final draft for comment											
Submission of corrected final copy											
Presentation of Thesis for Approval											
Submission of final Thesis											



## Appendix - E

### Research Budget

PARTICULARS	ITEM	COST	TOTAL
Stationery	A4 foolscaps	2 Rims @ksh.500	<b>1000</b>
	A4 printing papers	2 Rims @ksh.600	<b>1200</b>
	Rubber	2 pieces @ksh.150	<b>300</b>
	Ruler	2 pieces @ksh.100	<b>200</b>
	Stapler	1 pieces @ksh.500	<b>500</b>
	Paper punch	1 pieces @ksh.500	<b>500</b>
	Pins	1 pack @ksh.250	<b>250</b>
Storage devices	Flash disc 1	@ksh.3000	<b>3000</b>
	(4GB)CD-RW	5 pieces @ksh.30	<b>150</b>
Typing services	60 pages	@ksh.40	<b>2400</b>
Printing services	60 pages	@ksh.20	<b>1,200</b>
Photocopying services	4copies of 60pages	@180 per copy	<b>720</b>
Photocopying questionnaires	377 copies of 3 pages	@ 3 per copy	<b>3,393</b>
Binding services	4 copies of hard cover	@500 per copy	<b>2,000</b>
Transport from Nairobi to Nakuru town then to Egerton to and back to Nairobi	21 Days	Per return trip @ksh.1400	<b>27,400</b>
Lunch	21 Days	Ksh. 600 per day	<b>12,600</b>
Airtime: Safaricom	21 Days	Ksh. 200 per day	<b>4,200</b>
Data coding and entry	10 days	Per day @ksh.500	<b>5,000</b>
Data analysis and interpretation			<b>50,000</b>

Grand total Ksh.116, 013.00

