FACTORS LEADING TO ALCOHOL USE BY UNDERGRADUATE STUDENTS:

A CASE STUDY OF UNIVERSITY OF NAIROBI

by

Grace Kimeli

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In accordance with Daystar University policies, this thesis is accepted in partial fulfilment of the requirement for the Master of Arts degree.

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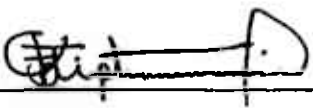Lincoln Khasakhala, PhD.
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DECLARATION

I declare that this thesis is my original work and has not been submitted to any other college or university for academic credit.

Signed:_____   Date:_8/7/2014_____

Grace Kimeli

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DEDICATION

This document is dedicated to my husband Raymond Kimeli, who encouraged me to soldier on with my studies and never give up. Without his support and encouragement, I may not have completed this thesis. I thank God for him every day.

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LIST OF ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome
ACK	Anglican Church of Kenya
BBC	British Broadcasting Corporation
BOG	Board of Governors
CBOs	Community Based Organizations
EADIS	Eastern Africa Drug Information System
ELECT	Electrical & Electronics
ENV/BIO	Environmental/Bio Systems
GAP	Global Assessment Programme
HIV	Human Immunodeficiency Virus
ICPA	International Commission on Prevention of Alcoholism
IEC	Information Education Communication
INCB	International Narcotics Control Board
MECH	Mechanical Engineering
MOE	Ministry of Education
MOEST	Ministry of Science and Technology
MOH	Ministry of Health
MSSM	Modified Social Stress Model
NACADA	National Agency for Campaign against Drugs
NGOs	Non-Governmental Organizations
NIDA	National Institute on Alcohol and substance abuse
NSDUH	National Survey on Drug Use and Health
NSDHW	Nova Scotia Department of Health and Wellness

S/ENG	Structural Engineering
STIs	Sexually Transmitted Infections
SPSS	Package for Social Sciences
UN	United Nations
UNODC	United Nations Office on Drugs and Crime
UNDCP	United Nations Drug Control Programme
UON	University of Nairobi
USA	United States of America
W H O	World Health Organization

ABSTRACT

The purpose of this study was to find out the factors leading to alcohol use among university undergraduate students. The objectives of the study sought to establish the underlying psychological, sociocultural and situational factors to the phenomenon. The study was carried out at the University of Nairobi's Main campus, School of Architecture and Engineering. Stratified random sampling technique was used in the study to select a sample size. Data were collected from the students of the faculty of Engineering, administration staff/counselors and lecturers. The research tools used in data collection were questionnaires, in-depth interviews (IDI) and Focus Group Discussions (FGD). Data analysis was done using SPSS and the results were presented by use of charts, graphs, and frequency tables. The study found out that university students view alcohol use as detrimental to their academic performance. It further revealed the significant relationship that exists between stress and alcohol consumption. It emerged from the study that peer influence, parenting, University environment and availability of financial resources are contributors to use of alcohol among university students. Conclusions drawn from the study showed that psychological, sociocultural, and situational factors indeed contribute to alcohol use by University students. It is recommended that midstream interventions could involve the development of programs across universities in the country. Future research is recommended in the area of media and alcohol advertising and its effects on consumption of alcohol, particularly, as it relates to university students.

CHAPTER ONE: INTRODUCTION AND BACKGROUND OF THE STUDY

Introduction

Alcohol is routinely cited by researchers, college administrators and staff, and also by students themselves, as the most pervasively misused substance on college campuses (Humphrey et al., 2000). Alcohol is a type of a psychoactive drug that acts to depress the central nervous system, has a high potential of psychological dependence and leads to irreversible tissue damage (Ramalingam, 1991). College is a period of transition; and as such students live away from home and parental authority, this enable them gain autonomy to own choices and thus end up engaging in new as well as risky behaviors through the influences of their peers and the environment. Studies have shown that the rate of drinking among college students after high school surmounts the alcohol use among their non-college peers (Johnston et al., 2000).

Global Perspective of Alcohol Use by Undergraduate Students

Alcohol consumption among university undergraduate students is a global health issue attracting attention from different stakeholders. It is a global issue taking place in various universities and institutions all over the world (Nova Scotia Department of Health and Wellness, NSDHW, 2012).

Alcohol use in the society has become a major concern in today's social atmosphere (Bray et al., 2000). However, the debate on whether alcohol is a drug or a beverage goes, the effects and impact of its use among undergraduate students is a fact that cannot be left to a debate. Alcohol (ethyl alcohol, ethanol) is a drug but technically it can be classified as beverage because it provides energy of about 7 Kcal/g. One drink of alcohol is considered to be an amount typically found in 340 ml of beer, 14 ml of wine or 35 ml of 40% (80% proof) spirits (Chan & Kessller, 2002).

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Alcohol use and dependence is a major problem among university undergraduate students in the United States of America (Bawkin, 2002). A report on alcohol drinking problem at most Canadian University campuses, (Tamburri, 2012) indicated that alcohol drinking had come as a rite of passage among students. Each year along with the start of classes, are the inevitable pub crawls, keg parties and excessive drinking that often accompanying frosh week events. According to Tamburri (2012), 90 percent of Canadian University students drink alcohol, with 32 percent reported to be drinking heavily at least once a month at Fanshawe University Ontario, the percentage was seen to be higher in Acadia University, Nova Scotia where it is estimated that about 51 percent of the students are involved in consumption of alcohol (NSDHW, 2010).

NSDHW (2010) observed that the students in most colleges in their State had adopted a practice of mixing alcohol with caffeinated beverages that are believed to exacerbate health risks associated with drinking. The above report further indicated that students often continued drinking at the next level of studies there by making drunkenness increasingly becoming the norm for most of them, among universities in the region.

In the United Kingdom, a study by Cheryl (2006) of Leeds Institute of Health Sciences, on drinking behavior of undergraduate students of the Leeds Metropolitan University, concluded that students who consume alcohol are commonly drinking daily and weekly alcohol levels in excess of national sensible drinking guidelines. According to the World Drug Report (2005), in recent years, the use of alcohol has increased throughout the world among students; it further states that a major world trend is the increasing availability of many brands of alcohol to an ever widening socio - economic spectrum of consumers.

Alcohol use among Undergraduate Students in Africa and Kenya

Africa was initially not among the continents affected by drugs and alcohol abuse, but with time, the trend has mutated. Today, many African countries have numerous cases of drug abuse, a trend that is fast growing. According to David (2001) "alcohol is the main abused drug in South Africa with the legal age of drinking being 18years". Even though the legal age is above18 years, many young people start drinking alcohol early. A national survey carried out in South Africa in 2004 showed that 49% of all the young people in that country drink alcohol, which translated to about three teenagers in every four.

In Nigeria, alcohol is commonly used during burials, child dedication, thanksgiving, birthdays, political rallies, initiation ceremonies, weddings, festivals and other social gatherings. In the universities and other institutions of higher learning, students consume alcohol during matriculation, convocation and initiation ceremonies to clubs and societies. The types of alcohol frequently used in Nigeria are similar to those used in other parts of Africa. The most commonly used substance in Africa is alcohol (Odejide, 2006) and the same for Nigeria (Eze, 2006, Nyamali, Morankinyo & Lawal, 2010).

It has also been noted that alcohol use is fast spreading to the rural areas of Kenya, especially Central, Western, Nyanza and Eastern regions for a long time it had been predominant in the urban centers (Njonjo, 2010). Alcohol use among the undergraduate students in the universities is endangering their lives. This has caused a lot of concern as the vice has been identified as a major cause of other problems experienced in Kenyan universities (Gikonyo, 2005).

In response to global warnings on the dangers posed by alcohol use, the National Agency for Campaign against Alcohol and Drug Abuse (NACADA) is

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pushing for the establishment of a national drug control authority to enforce all alcohol consumption laws in Kenya (Kaguthi, 2006). According to Kaguthi, despite religious education having been instilled strongly in the university students, most of them still use alcohol, a vice that is likely to destroy their lives before they become adults.

From the above background it is evident that various studies have been done about the alcohol use by students. A few of these studies were done by local scholars; while the bulk was done by the western scholars. In Kenya some of the studies that was done include Gikonyo, (2005) on drug abuse and parental knowledge on factors predisposing the youth to drugs and substance abuse in Nairobi Province. Another study done by Kiambuthi, (2005) looked at factors contributing to drug abuse in some selected public secondary schools of Kiambu District. The Kenyan studies did not address the issue of underlying factors leading to alcohol use by university undergraduate students. It is against these gaps that the current study sought to address the underlying factors leading to use of alcohol by university students. The findings will aid in evaluating strategies for intervention and coming up with more comprehensive programmes for mitigating the problem of alcohol use in universities.

Statement of the Problem

Many university undergraduate students are using alcohol, and studies done in the past did not address the underlying factors leading to its use by university students. Even though alcohol has been used throughout most generations of mankind; the context of use was limited to special occasions and age groups. However, it is alarming to note that the context has changed, currently the age of users has drastically gone down; more young people are indulging in alcohol use and more so university students (NSDHW, 2012).

Evidence on the Kenyan situation from a recent national report, showed that 85% of university students surveyed admitted to having tried alcohol, with 40% reporting occasions of heavy drinking, while 48% indicated that they have been "drunk" in the past 60 days (NACADA, 2008). Of the alcohol related deaths, 5 are due to unintentional injury such as falls, hypothermia, and drowning, over 3 due to motor vehicle accidents (G.O.K, 2009).

Alcohol use has also raised concerns to parents and employers who complain about alcohol use by the graduates they employ since most of them become underperformers (Obi et al., 2013). The key question is: why are university students indulging in alcohol use? Studies have been done on other aspects of alcohol, such as the prevalence of alcohol use but a gap has been left concerning the underlying factors. It is against this gap that this study was undertaken, seeking to establish the underlying factors leading to alcohol use by undergraduate students with a view to coming up with mitigating strategies and interventions to curb the vice.

Purpose of the Study

This study sought to establish the factors leading to alcohol use by undergraduate students: a case study of University of Nairobi Main Campus.

Objectives of the Study

The objectives of the study were as follows:

i) To establish the psychological determinants leading to alcohol use among undergraduate students.

ii) To find out the socio cultural factors that lead to alcohol use among undergraduate students.

iii) To determine the situational factors leading to alcohol use among university students

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iv)   To establish the strategies for combating/mitigating alcohol use among undergraduate students.

Research Questions

The study sought to answer the following questions:

i)   What are the psychological factors leading to alcohol use among undergraduate students?

ii)   What are the socio cultural factors that lead to alcohol use among undergraduate students?

iii)   What are the situational factors that lead to alcohol use among university students?

iv)   What strategies of interventions could be put in place to mitigate the use of alcohol among student?

Justification/ Rationale

Alcohol use has contributed to negative effects such deaths, violence, and cases of sexual assault and date rape, motor accidents among others in university campuses each year. More young people have joined the alcohol consuming fraternity (Kaguthi, 2006). This study aimed to bridge this gap by undertaking an in-depth study to determine the underlying factors that contribute to this phenomenon among undergraduate students with a view of coming up with strategies and interventions to curb the menace.

Significance of the Study

The findings of this proposed study would be important in many respects to the undergraduates, psychologists, the university management, policy makers and the general public. The study would provide the undergraduates students with knowledge of the dangers associated with the use of alcohol, its effects on their academic

performance and how to live a responsive life devoid of undesirable effects such as violence, health related problems and poor academic performance. The study findings will provide psychologist and counselors with the necessary evidence that will enable them design and implement interventions aimed at addressing alcohol use and resultant problems.

The University Management will benefit from the study for it will enable them determine the extent of students involvement in alcohol use and the impact of it, and possibly device means of dealing with students behavioral problems. The findings of the study will provide adequate and current data on alcohol for experts to formulate better policies that will guide the University Management in taking decisions on issues regarding alcohol use among undergraduates.

Apart from proposing more effective preventive measures in relation to alcohol use, the study addressed the dearth of information on underlying factors associated with alcohol use among undergraduate students in Kenya. To the researcher, this study not only enabled meeting part of the course obligation and requirement but will go a long way in sharpening the skills and competence in data collection, evaluation, analysis and interpretation. Finally, the outcome of this study will assist the parents and general public who associate with the undergraduates to understand and appreciate the need to join in the fight against alcohol and its effects among university students in Kenya.

Scope of the Study

This study focused on finding out the underlying factors that contribute to the use of alcohol among undergraduate students. This study was undertaken at the University of Nairobi's main campus. This research addressed the questions that seek to determine the factors that lead to the use and abuse of alcohol among

undergraduate students. This study was conducted in the months of March to May 2014, a period of the semester when most undergraduate students are in session.

Limitations and Delimitation of the Study

Due to the sensitive nature of alcohol use, some organizations as well as individuals may not feel free to give the true picture of the problem. This may have interfered with the information collected. There was evidence of the suspicion normally associated with any kind of a research study. However, it was solved by assuring the respondents of utmost confidentiality and disclosing to them the academic purpose and intention of the study.

Some respondents may have been biased thus causing inaccuracy of some of the information. This was resolved by emphasizing to the respondents that the study was made for academic purpose only.

The issue of unreturned questionnaires and uncooperative respondents posed a challenge to the researcher. The respondents were assured that the research is only meant to determine the factors leading to alcohol use for academic writing, and were not to jeopardize their positions in any way. Follow ups were made to facilitate the response rate. Other limitations include the interference of factors such as biological predisposition to alcohol use. Application of findings to a general population may be limited because the study was done in one university.

Assumption of the Study

The study worked with the assumptions that alcohol use is rampant among university undergraduate students in Kenya and there are factors that perpetuate the practice and need to be identified.

<center>Definition of Key Terms</center>

Alcoholism: Refers to a disease known as "Alcohol Dependence Syndrome"

Alcohol: Is a central-nervous-system depressant that slows the activity of the brain and spinal cord.

Problem Drinkers: Current users of alcohol whose drinking patterns meet some defined criteria, such as experiencing negative consequences (e.g. conflict with family members) as well as exhibiting one or more symptoms of alcohol dependency.

Alcohol addiction: Addiction to substances or alcohol means that a person's body can no longer function without these substances WHO (2000). The addictive substances usually have negative effects, for example, they can alter mental state and behavior to a point where the individual becomes a threat to himself and others. Once a person becomes addicted, it is hard to stop using drugs.

According to NACADA (2012), an addicted person may show a decline in academic performance, frequently fail to attend classes, lose interest in university work and display weakened motor coordination, poor health, and lack of interest in old friendships. Addiction by its nature distorts thinking processes giving prominence to thoughts which justify continuing addictive behavior, and minimizing or excluding consideration of reasons for ceasing it.

Legal drugs: Refers to substances such as alcohol and tobacco that are potentially dangerous but whose abuse the government allows (WHO 2009).

Strategies: This term refers to the methods or approaches that universities have put in place to address substance related problems in the institutions. They are also measures

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that have been put in place by the Kenyan universities with the aim of curbing alcohol and substance abuse and controlling its negative effects (NACADA, 2007).

Intervention: This is an attempt to help alcohol users to positively modify their behavior, and change their attitude towards use of alcohol. It also includes activities and programs put in place to address alcohol use.

Drug: Any product other than food and water that affects the way people feel, think, see and behave. It is a substance that due to its chemical nature affects physical, mental and emotional functioning. It can enter the body through chewing, inhaling, smoking, drinking, rubbing on the skin or injection (WHO, 2010).

Substance Abuse: Refers to the over use of all chemicals, drugs and industrial solvents that produce dependence (psychological and physical) in a percentage of individuals who take them. It can also be used to refer to repeated non – medical use of potentially additive chemical and organic substances. According to WHO (2000),substance abuse includes the use of chemicals in excess of normally prescribed treatment dosage and frequency, even with knowledge that they may cause serious problems and eventually lead to addiction.

Summary

This chapter looked at the introduction and background of the study, the research problem, the objectives of the study, the research questions, the purpose of the study and its significance. It has also dealt with the scope, limitations and delimitations of the study and concludes by explaining the meaning of key terms in the study.

CHAPTER TWO: LITERATURE REVIEW

Introduction

This chapter focuses on the review of some documented information relevant to the current study which focused on finding out underlying factors leading to alcohol use by undergraduate students. It particularly analyzes literature in the four thematic areas which are psychological determinants, sociocultural, and situational factors that contribute to the use of alcohol among undergraduate students. This chapter also focused on the strategies and intervention adopted elsewhere in response to the increasing use of alcohol .Besides it also outlines relevant theoretical frameworks that will guide the entire study

Theoretical Framework

A theoretical framework is a collection of interrelated concepts. It guides research to determine what things to measure, and what statistical relationships to look for (Defee et al., 2010). A good research should be grounded in theory (Mentzer et al., 2008). This study is guided by alcohol expectancy theory, classical conditioning theory and addictive experiences theory. These theories clearly explain the research in line with the topic. Alcohol expectancy theory gives information on how alcohol is stored in the brain and nervous system and becomes activated in memory when a person begins thinking about alcohol. The theory explains what triggers an individual to drink.

Finally the addictive experiences theory explains what makes students indulge in substances; a desire to emulate others in the peer group; and personal needs, such as to avoid pain, to escape from reality, to gain a predictable gratification in the absence of other life rewards, to compensate for a sense of personal inadequacy.

Classical Conditioning Theory

This study lays its basis on the theory of classical conditioning. Classical conditioning theory involves learning a new behavior via the process of association. In simple terms two stimuli are linked together to produce a new learned response in a person or animal, which happens in three stages whereby in the first stage of it, an unconditioned stimulus produces an unconditioned response in an organism (Miller, 2005). In basic terms this means that a stimulus in the environment has produced a behavior or a response which is unlearned (i.e. unconditioned) and therefore is a natural response which has not been taught. In this respect no new behavior has been learned yet (Wolburg, 2001). Another stimulus which has no effect on a person and is called the neutral stimulus is introduced. The neutral stimulus could be a person, object, and place and so on. The neutral stimulus in classical conditioning does not produce a response until it is paired with the unconditioned stimulus (Wolburg & Treise, 2004).

In the second stage, a stimulus which produces no response (i.e. neutral) is associated with the unconditioned stimulus at which point it now becomes known as the conditioned stimulus (Mickey, 2003). Often during this stage the unconditioned stimulus must be associated with the conditioned stimuli on a number of occasions, or trials, for learning to take place. However, one-trial learning can happen on certain occasions when it is not necessary for an association to be strengthened over time (such as being sick or addicted after drinking too much alcohol). At stage three, the conditioned stimulus has been associated with the unconditioned stimulus to create a new conditioned response. In this study, alcohol use (drinking) act as the unconditioned stimuli, while not drinking the alcohol is the neutral stimuli. Memories created as a result of drinking and the effect of alcohol act as the conditioned stimuli.

Alcohol Expectancy Theory

Alcohol expectancies refer to beliefs people hold about the anticipated effects of alcohol. These beliefs are formed at a very early age, and exist from the first time an individual is exposed to information about alcohol (Cruz & Dunn, 2003). This information about alcohol is stored in the brain and nervous system and becomes "activated" in memory when a person begins thinking about alcohol. For example, when an individual is presented with an alcoholic drink, expectations based on how consuming the drink will affect the individual emerge based on past experience with alcohol use. This past experience can come in many forms including observing friends or family drink, exposure to the media and advertising for alcohol, and prior drinking experience.

Beliefs about the effects of alcohol have been identified as a key component in explaining alcohol dependence. Memories related to alcohol use can influence how an individual thinks about alcohol and its effects, and therefore indirectly influences how much an individual consumes and the pattern of drinking that is developed (Cruz & Dunn, 2003; Fromm & Dunn, 1992; Goldman, 1999a; Rather & Goldman, 1994).Research on expectancies and memory processes has described memory as a symbolic, proximity-based network (Rather & Goldman, 1994). Simply put, memories are stored in a network where they are linked closely or distantly to each other based on how related their meanings are and what the history of learning was for the individual. These networks of memories are activated in a predictable manner whenever the individual encounters stimuli that relates to the previously learned memories.

There are two dimensions identified related to alcohol expectancies. The first dimension is in regard to the positive and negative outcomes of alcohol. The second

dimension deals with arousal and sedation, or the observed pharmacological effects of alcohol (Goldman, 1999b; Rather & Goldman, 1992; 1994). Research has demonstrated that high-risk drinkers may be more likely to rapidly associate drinking with the positive and arousing effects rather than the negative and sedative effects. In terms of memory networks, the network of expectancy effects in high-risk drinkers is more "tightly packed," leading to the fast activation of the positive-arousing beliefs when they are exposed to alcohol.

In contrast, the network of expectancy effects is more dispersed in light drinkers, causing them to form expectancy associations with alcohol more slowly than high risk drinkers, which in turn may inhibit drinking (Rather& Goldman, 1994). Arousal-based expectancies are generally associated with positive views of alcohol use such as "Alcohol will make me feel energetic," or "Alcohol will make me feel happy." These expectancies also tend to be associated with early onset for alcohol use and the eventual development of high risk drinking patterns. Sedation-based expectancies focus on the sedating effects of alcohol. An individual with these types of expectancies might believe that "Alcohol will make me feel depressed," or "Alcohol will make me feel tired." Those who possess primarily sedation-based expectancies tend to drink less (or not at all).

Addictive Experiences Theory

A person can begin to use or try a substance for any of the whole range of human motivations; indeed, the desire to alter consciousness through drug use seems to be nearly universal (Lewis et al., 2009). The reasons for initial use can determine whether or not the user will ultimately become addicted. The following are reasons for starting to take alcohol or any drug: a sense of adventure; a need for stimulation; a desire to emulate others in the peer group; and personal needs, such as to avoid pain,

to escape from reality, to gain a predictable gratification in the absence of other life rewards, to compensate for a sense of personal inadequacy (Peele, 1977).

People use drugs when they find such use to be rewarding in terms of values, needs, and overall life structure. Conceivably a drug can fulfill positive functions for an individual such as enabling him or her to work better or to relate to others (Hogue et al., 2010). Even in this case there is the danger that functioning in a positive sense will become dependent on continued drug use. In all cases, use of the drug will probably make it harder for the person to eliminate underlying and unresolved problems (Diana et al., 2008).

While the experience the drug produces for the person must provide rewards for him or her in order to maintain drug use, this is not to say that its objective impacts on the user's life will not be negative (Imel et al., 2008). Thus substance users find the removal of pain and the absence of anxiety induced by the drug to be rewarding, even though these effects make them less sensitive to and less effective in dealing with their environment (DeWall et al., 2009). In fact, it is this very depletion of capabilities which best guarantees continued use of the drug and alcohol.

Addiction occurs along a continuum, so that it is impossible to designate an exact point at which a drug habit becomes an addiction. There are several criteria in terms of which it is meaningful to evaluate a drug involvement for its addictive potential (Cook, 2007). Some of these criteria derive from initial motivations for using alcohol and from the motivations for continuing use. If a drug is used in order to eradicate consciousness of pain, problems, and anxieties, then its use will tend to be addictive. Another aspect of this type of abuse is the inability of users to derive pleasure from drug use, since they are relying on the drug primarily to avoid unpleasantness rather than for any positive effect (Diana et al., 2008). In this case, a

criterion for abuse and addiction is that the drug is relied on at regular times for the very predictability of its effects.

The most crucial criterion for the addictiveness of an involvement is whether use of the drug destroys or harms other involvements. For when this is the case, abuse moves inexorably along the continuum toward addiction as other reinforcers fall away, and the drug experience becomes the primary source of reward for the individual, (Peele, 1977). To cease being addicted to a drug, one must develop the ability to derive real rewards from the world to replace the unrealistic rewards that the drug provides. Such rewards include those which come from basic competence, from the ability to carry out meaningful work which is rewarded by others, from the capacity to form intimate relationships with other people, and from having a comfortable and satisfying relationship generally with one's environment (Ozdel et al., 2009).

While it may be necessary to restrict or eliminate drug use in order to accomplish these goals, simple cessation of use in no way implies that these goals are accomplished. This theory is relevant to this study since it includes an analysis of the feelings which led to use of alcohol or any other drug, explores more functional methods of coping with these feelings, and tries to encourage practice (actions) which are incompatible with reliance on the drug experience (Marczinski and Fillmore, 2009). It gives practical solutions to cessation of drug and alcohol dependence a paramount need for both the female and male youth and the community they live in.

Empirical Review

"It is humbling for contemporary researchers to revisit the pioneering research of Straus and Bacon, published in 1953 on Drinking in College. Written almost a half century ago, it stands as a remarkable contribution that is difficult to match. It is

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equally humbling to realize that college drinking poses as serious a problem, perhaps even more serious a problem, today as it did 50 years ago" (Biden, 2000; Robert Wood Johnson Foundation, 2001).Drinking behavior is complex, and there is a need to broaden the range of issues studied, particularly extending analysis to the economic, political and ecological factors that have so far received far less study than the psychosocial issues. Such factors include; the alcohol environment on campus and in the surrounding community (Dowdall & Wechsler, 2001).

The factors influencing underage and young adult drinking are similar in that the same mix of situational, predisposing and enabling factors appear to be present in each age group, although there are some unique factors; they vary in nature and degree (Donovan, 2000). For example, the major differences for beginning underage users versus overage alcohol users are the curiosity novelty of the alcohol experience, and the 'psycho-developmental' significance of alcohol consumption for younger people. That is, alcohol consumption is seen as an adult behavior and hence experimentation just as with smoking is part of adolescent development (Crundall, 1995).

Studies have identified personal characteristics that may increase the likelihood that a young people will engage in underage drinking. Impulsive or excitement-seeking youth and young adults are more likely to drink alcohol (Diemen et al., 2008). Rebellious young may also drink because they do not feel that they are part of society, thinking they are not bound by rules, and may not want success or responsibility. Additionally, young people with mental health issues, such as depression or attention deficit hyperactivity disorder, may be at higher risk for substance abuse (Alcoholism: Clinical and Experimental Research, 2007). Similarly, individuals who face mental health problems because of physical or sexual abuse may

turn to alcohol and drugs as a solution to their trauma (Brannigan et al., 2004).

Psychological factors

Some studies have looked at personality factors and their relation to adolescent alcohol consumption. Donovan et al (2000) reported that amongst the youth, there was some evidence that those who drink to excess more frequently are more likely to be assertive, outgoing, less conservative, more questioning of authority, more likely to be risk takers, and at least within some groups, more likely to be leaders than followers. Similarly, Crundall (1995) reported heavier drinking to be associated with impulsiveness, aggression, depression, and sensation seeking.

Lower social skills in dealing with everyday problem situations have been found to be associated with various problems of behavior, low academic achievement, smoking, and alcohol use in Australia (Hover & Gaffney 2003). It has been suggested that the use of mood altering substances would be greater amongst such youth in an attempt to deal with feelings of failure and disappointment. It is also likely that lower social skills are related to lower self-efficacy in terms of resisting peer and situational influences and in planning ahead for moderate drinking.

Donovan, (2000) reported that those with positive attitudes to college work and with fairly firm post college aspirations tended to be less involved in alcohol. More importantly, positive college experiences and a focused career goal seemed to provide some protection against drinking on leaving university (Loveland-Cherry, et al, 1996).

Alcohol use by adolescents is also associated with abnormalities in the volume of the prefrontal cortex, the part of the brain that controls reasoning and impulse (Medina et al., 2008). In particular, females are vulnerable to the effects of alcohol on this part of the brain. Severe or chronic alcohol use among female adolescents may

limit the development of their prefrontal cortex more than it does for males. Low prefrontal cortex development may lead to deficiencies in reasoning and impulsive behavior. Alcohol can activate the pleasure-producing chemistry of the brain and release a pleasure-enhancing chemical called dopamine. Dopamine is released in the brain when an action satisfies a basic need or desire. With repeated alcohol use, the brain's natural capacity to produce dopamine is reduced. This leads to feelings of depression, anger, boredom, anxiety, and frustration (O'Connell et al, 2004).

With the use of alcohol and other drugs over time, young people may fail to advance to more complex stages of thinking and social interaction. An individual with alcohol use disorders often perform worse on memory tests and have diminished abilities to plan, and the effects may also include hallucinations, psychotic episodes, changes in sleep patterns, and changes in the ability to concentrate (Bonnie & O'Connell, 2004).

There is a body of empirical work exploring the links between personality traits and alcohol use; still the empirical evidence is contradictory and confusing (Clarke & Robertson, 2005). The most common correlates of risky drinking, as well as of academic performance of students, studied in previous research are personality traits, usually explored by using five-factor model. All five personality traits (extraversion, neuroticism, openness, agreeableness, and conscientiousness) might have positive or negative effect to risky drinking in general population, but this relationship might be significantly moderated by organizational context (Clarke & Robertson, 2005; Lajunen, 2001).

Sociocultural factors

Parents' attitudes and behavior with respect to alcohol are a major influence on at least early drinking patterns, before peer influences become more influential.

Children of heavy drinking parents through imitation/modeling, and children of strictly prohibitive parents through reactance and defiance of authority, appear to have a higher risk of drinking excessively (Sondhi & Turner, 2011). However these relationships are complex for example, some children of heavy drinking parents deliberately avoid alcohol because of the damage they see alcohol doing in their family (White & Hayman, 2006).

Parents and siblings can influence a youth's propensity to start drinking. For instance, studies have shown that youth are more likely to drink alcohol when at least one of their parents has a history of alcoholism and alcohol use (King & Chassin, 2004; Essau & Hutchinson, 2008). If parents do not set clear behavioral expectations or monitor their children's behavior, children may be more likely to participate in underage drinking (Bonnie & O'Connell, 2004).

Research has found that family conflict is associated with increases in adolescent alcohol use (Bray et al., 2001). Young people may turn to alcohol, or to peer groups who consume alcohol in middle adolescence to cope with family conflict. Therefore, alcohol use should not be considered simply a normal stage of adolescent development. Instead, prevention and intervention workers should look deeper into the causes of initial alcohol use.

Most university undergraduate students are aged around 21, for example in America, consumption of alcohol often involves the violation of state laws by students and alcohol providers (Cleveland, et al, 2010). The role of availability and context shapes behavior, but little is known about the issue, and even less about local alcohol markets, legal or otherwise. Wechsler et al. (2000a) found that availability, price and the use of beer were the strongest predictors of heavy episodic alcohol use in young students.

During the past decade there has been extensive growth in student living arrangements beyond the traditional dichotomy of dormitory or home. The rise of "resimuters," students who live near their institutions but are unsupervised by parents or colleges, needs to be more adequately studied (Cleveland, 2010). Whether alcohol is permitted in the halls of residence or the entire campus is related to the level of drinking, alcohol related problems and second hand effects experienced by non-drinking students. Wechsler et al., (2001a, b) examined substance free hostels and campuses that ban alcohol, controlling for previous drinking behavior of these students in substance free environments.

Attention has been given to the question of the prevailing Social norms that surround college drinking. One school of thought Haines (1996); Haines and Spear (1996) suggests that students misperceive the actual behavior of their peers, assuming much higher rates of substance use than in fact prevails. This has led some to suggest that correcting the misperception of norms might lower alcohol use, although empirical evidence seems to be conflicting with some universities reporting decreases and others reporting no change (Haines, 1996; Keeling, 2000). In addition, Wechsler and Kuo (2000) concluded that the potential role of social norms in influencing college students 'drinking may have been overstated. Research is needed on other types of student norms, such as supplying alcohol to underage drinkers and tolerating disruptive second hand effects, as well as on local community norms.

During adolescence, youth strive for acceptance by their peers. They want to fit in and often choose peer groups whose values and behaviors are similar to their own. If drinking is a typical activity for these groups, they are much more likely to drink. Students' drinking often occurs at social events that peer groups attend, such as sports events, concerts, and parties (Henry, 2009).

Situational factors

Depending on the situation, individuals can engage in different alcohol consumption behaviours. Alcohol consumption levels can vary when individuals are playing different social roles (McMorris & Uggen, 2000) when in different moods, and when drinking in different venues (Hajema et al., 1997). The drinking occasion is particularly relevant, with parties being strongly associated with alcohol use (Caldwell & Darling, 2001; Smeaton et al., 2001), especially when drinking games are played (Engs & Hanson, 1999). Sexual encounters involving new partners have been found to frequently involve the use of alcohol (Smith & Brown, 2002).

In today's culture, young adults are bombarded with media and advertisements about drinking. Often, the media make drinking appear sexy and fun. Advertising may include items with alcohol brand names, and alcohol companies may sponsor popular events or give free products to young people (Jernigan & O'Hara, 2004).Few empirical studies have examined the effects of alcohol advertising in the media. However, some evidence suggests that alcohol advertising may influence the beliefs and behaviors of young people, causing them to drink illegally (Grube, 2004).

Conventional advertising and marketing practices including above and below the line activity, as well as alcohol portrayal in broadcast and print media, for example product placement and depiction of alcohol use. This includes advertising appearing on television, radio, newspapers, billboards, posters etc. or depiction of alcohol use in movies, TV programmes, music videos and song lyrics. Promotional activities include giveaways such as t-shirts, and other items bearing alcohol brand logos (Villani, 2001).

Widespread concern exists about the potential effects that media portrayals of drinking, alcohol product placements, and alcohol advertising may have on alcohol

consumption among young people (Bahk, 2001). Television, radio, film, and popular music are often identified as potential sources through which young people learn about alcohol and as potential influences on young people's drinking and drinking problems (Stockdale, 2001; Villani, 2001).

Not all merchants are vigilant about preventing underage youth from buying alcohol. Some youth use false identification to buy alcohol; persuade adults to buy it for them; or steal alcohol from parents, friends, and commercial establishments. Adults often purchase alcohol and provide it to underage drinkers at parties and events, sometimes with the permission and collusion of parents (Bonnie & O'Connell, 2004). Psychoactive substances such as alcohol produce pleasurable feelings and may diminish stress and emotional pain.

These chemicals can turn on the brain's reward system, which makes people want to repeat the use of substances to obtain the same feelings. Eventually, substance use can alter the structure and chemical makeup of the brain, leading to brain disorders (Society for Neuroscience, 2008). In addition, adolescents have a diminished sensitivity to intoxication, making it possible for them to drink more alcohol without feeling very intoxicated. This may be because they have higher metabolic rates (Winters, 2009).

Mitigation Strategies for alcohol use among university students

Alcohol problems on campuses cannot be solved with simple solutions, such as an alcohol awareness campaign only. Instead, dangerous college drinking can be prevented with an array of protective measures that deal with alcohol availability, enforcement of existing laws and rules, and changes in how alcohol is promoted, sold and served (Stewart et al., 2009).Fortunately, several promising strategies, proven to be effective, have been developed to prevent these problems in colleges, universities

and in the communities in which they reside. Recent research has provided further tools for reducing alcohol related problems among college students (Stewart, 2007).

Environmental management based on the fact that people's behavior, including their use of alcohol, is powerfully shaped by their environment, messages and images delivered by the mass media, the norms of their communities and other social groups, the availability of alcohol, and so forth. Thus, effective prevention requires appropriately modifying the physical, legal, economic, and socio-cultural processes of the community at large that contribute to alcohol use and related problems (Saltz et al., 2010).

Prevention directed at the environment generally relies on public policies (e.g., laws, rules, regulations) and other community-level interventions both to limit access to alcohol and to alter the culture and contexts within which decisions about alcohol use are made. Because environmental management affects whole populations and creates changes in the fundamental system wide processes underlying alcohol use, it can potentially bring about relatively quick, dramatic, and enduring reductions in alcohol use problems (Malloy et al., 2002).

Conceptual Framework

A conceptual framework is very important in any research. A concept is defined by Nonaka and Konno (2009) as an obstruction, a symbol, a representation of independent and dependent variables or of a behavioral phenomenon. The conceptual framework in figure 2.1 shows the relationship between the dependent variable, the intervening and the independent variables. The independent variables are the factors which influence the dependent variable in this proposed study.

Independent variables   *Intervening variables*   *Dependent Variable*

Psychological factors	→	Perception Cognition Expectancy Personality traits Behaviours	→	
Sociocultural factors	→	Parenting Genetic predisposition Peer influence Life stresses Environment Cultural messages	→	Alcohol Use
Situational factors	→	Timing Exposures Life events Resources	→	
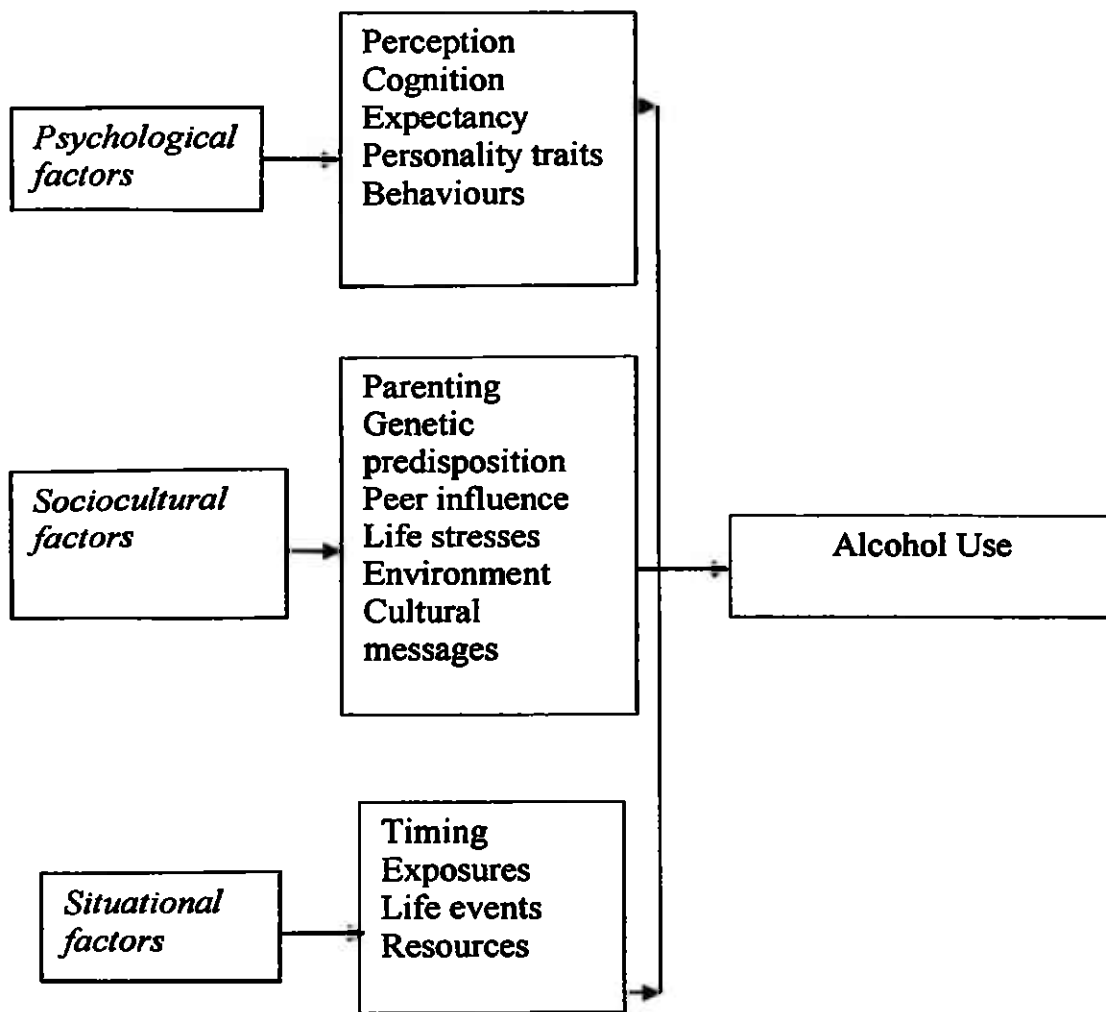
Source: Adopted from Adelekan & Lindsay (2006)

*Figure 2.1.*Conceptual Framework

Summary

Among university students, alcohol is the most widely used drug in the world today. The empirical review has indicated a significant relationship between students' use of alcohol and their social relationship, as well as a significant relationship between students' use of alcohol and morals. Presley (1996) reported that alcohol use affects many parts of the brain, but the most vulnerable cells are those associated with memory, coordination, and judgment. He argued that alcohol use has several physiological and psychological effects, which inhibit students' performance as cognitive abilities are affected by even small amounts of alcohol and substances, and can persist for a substantial period of time after the acute effects of impairment to disappear. In addition to cognitive impairments, the resulting recovery period wastes time that might be better spent studying or having fun.

Knowledge about the factors leading to alcohol use in universities is crucial in the development of intervention programs. However, it cannot be assumed that the factors in the literature review are the only ones responsible for alcohol use by students in universities. It will therefore be important to carry out a study and establish the actual factors which are unique to alcohol use by university undergraduate students, by carrying out a case study at the Nairobi University's Main Campus with a view of coming up with proposals of intervention measures. In addition, the study attempted to critically analyze the underlying factors that lead to alcohol use.

CHAPTER THREE: RESEARCH METHODOLOGY

Introduction

This section describes the research methodology of the study. The aim of the empirical investigation was to establish the underlying factors leading to alcohol use among university undergraduate students in Nairobi. In this chapter the research methodology to be used to obtain data was discussed. This includes the population, sample size, sampling procedure, data collection methods, pretesting of the questionnaire, data analysis and ethical considerations of the study.

Research Design

A research design is the specific outline of how the research was conducted. It is the structure of the methodology that was used to conduct the survey. Thus the design went deeper into the research method by detailing how and why the questions asked were to answer the stated research problem. Key aspects of design included methodology, sample collection and the data collection procedures. The type of design can be descriptive or exploratory.

A mixed research design method was utilized for this study. It is a procedure for collecting both quantitative and qualitative data. This method can be used in a single study to understand a research problem (Creswell, 2012).The rational for using this approach was that, the method afforded the study use of quantitative data where descriptive research was applied, as well as qualitative data collection through the use of In-depth Interviews (IDI) and Focus Group Discussions (FGD). The other important reason for the method was that the data collection was done at the same time and in one visit to the field (Creswell, 2012). The study was best suited to answer questions such as "what is' and "what was" (Bickam & Rog, 1998). The objective

was to determine the relationship between an independent variable and a dependent outcome in the sampled population.

Location of the Study

The study was undertaken at University of Nairobi's main campus. The choice of the location for the study was informed by its proximity to the CBD (The Central Business District) of Nairobi; the capital city of Kenya, an administrative and commercial center of most trade transactions locally, regional and international, hence sources of all alcohol brands are readily available. Coincidentally, peddlers and traffickers of other drugs also tend to conduct their operations from within the expanses of the cosmopolitan city. This as a result brings the supplier closer to the Campus making the students more vulnerable. These attributes make Nairobi University a location ideal for the study.

Target Population

The target population as defined by (Mugenda & Mugenda, 2003) is the population the researcher studies. In the study, the researcher covered University of Nairobi. The university has 10 campuses, with students at different levels of study namely diploma, undergraduate, postgraduate and Ph.D. Out of these 10, one campus was chosen as the subject, which was the main campus. The target population for the study was the undergraduate students at University of Nairobi's Main Campus which has a total population of 9,400 undergraduate students as at 2013 (http:www.uonbi.ac.ke, 2013).

Table 3.1

Target Population

Name of institution	Target population
UON main campus	9400
Total	9400

Source: (http:www.uonbi.ac.ke, 2013).

Sampling Technique

Stratified random sampling technique was used in the study to ensure that respondents came from the five faculties. According to Kerry and Bland (1998), the technique produces estimates of overall population parameters with greater precision and ensures a more representative sample derived from a relatively heterogeneous population to make each stratum homogenous. Samples were drawn only from the University's main campus for the utilization of the study. It enabled the researcher to collect detailed data and administer the research instrument personally, along with the research assistants.

Sample Size

The sample is normally obtained from the population targeted for study as it possesses the appropriate characteristics to be studied. Mutai (2001) argues that it is at times impractical or uneconomic to obtain data from the entire identified sample population thus necessitating a sample size to be obtained from the sample population. Kombo and Tromp (2006) describe a sample size as a group of respondents chosen from a larger population for the purpose of a survey. The sample size is carefully selected so as to be a good representation of the intended population for the study.

Samples were drawn only from the University's main campus for the utilization of the study. The main campus hosts two colleges; College of Architecture and Engineering, and College of Humanities and Social Science. Since it was not possible to utilize the whole population, the study sampled from the student population of the university's college of architecture and engineering, specifically the school of engineering with a population of 2,900 undergraduate students (The Dean, College of Architecture & Engineering 2014).

Gay, (1987) outlines that that the minimum acceptable sample size depends on the type of the research and that in a descriptive research 10% of the population can comprise a representative sample, the study computed 10% of 2,900 which the student population in the school of engineering constituted. The sample size therefore was 290 that were picked from each of the five faculties of the school. Focused group respondents were selected randomly from both set of students; that is male and female students (Mugenda & Mugenda, 2003).

Table 3.2

Sample Population

Name of School	Total population	Sample size
School of Engineering	2,900	290

Table 3.3

Sample Size

Name of Faculty	Total Population	Sample size
Faculty of Civil Engineering	980	98
Faculty of Electrical & Electronics	720	72
Faculty of Mechanical Engineering.	640	64
Faculty of Environmental & Bio-systems	330	33
Faculty of Civil & Structural	230	23
Total	2900	290

Source: (Office of the Dean of the college of Architecture & Engineering, 2014).

Data Collection Instrument

A questionnaire was administered to the students to collect demographic and factual data relating to the underlying factors leading to alcohol use among undergraduate students in university. A questionnaire was used to cover a wider scope, which best serves to supplement information, clarify gaps and add insight to the study (Mugenda & Mugenda, 2003). The questionnaire contained both structured (closed-ended) and unstructured (open-ended) items. Interview guides for the In-depth

interview (IDI) and Focus group discussion (FGDs) were used for collecting data on key informants and participant's experiences and perceptions on alcohol use.

Data Collection Procedures

The first step in data collection was to get approval from the supervisor to proceed for fieldwork. Thereafter, a research permit was obtained from the Ministry of Education (MOE-NACOSTI). This was followed by the recruitment of four research assistants who were inducted for two days; the aim was to enable them to understand the research problem and research methodology, and how to administer the research instruments. The research assistants worked closely with the researcher during the data collection period.

Before the actual data collection, the questionnaires were pre-tested (piloted) on a selected sample similar to the actual sample that was not included in the study. The procedure used in pre-testing the questionnaires was identical to that used during the actual data collection. This allowed the researcher to make meaningful modifications to the research instruments.

Pre-testing was considered important in the study because comments and suggestions by respondents during pre-testing helped improve the quality of the questionnaire (Mugenda & Mugenda, 2003). Pre-testing was meant to reveal deficiencies in the questionnaire. For example, unclear instructions, insufficient writing space, vague questions and wrong numbering were revealed and corrected, thus improving the questionnaire. The responses from the questionnaires were analyzed to check if the methods of data analysis were appropriate and suitable.

On visiting the sites during the actual data collection, the research questionnaires were administered personally by the researcher with the assistance of

the research assistants. The questionnaires were distributed equally among gender and collected the same day on completion.

Pre-Testing the Research Instrument

Before the actual research was conducted, the questionnaires were pre - tested in a similar university in Nairobi namely Daystar University. The aim was to check on the clarity of the questionnaire items and instructions to eliminate ambiguity in wording. The other reason was to check on time taken to answer questions and complete the questionnaires.

One on One Interview

The researcher considered other views from respondents who are not students. These are the counselors and some of the members of the university management. A one on one interview was conducted using an interview guide, which outlined the questions to be covered during the interview. In essence this covered the views and observations of those outside the student fraternity as well as adding more quality to the research study.

Focus Group Discussion

The researcher also used focus group discussions as another way of getting information from the students. The focus group discussion entailed undergraduate students only with an equal distribution on gender basis, seven participants from each gender where the anticipated time for the discussions did not exceed one and a half hours.

Data Analysis

Data analysis is the process of bringing order, structure and meaning to the mass of information collected. Data was analyzed by frequency tables and percentages. Frequency tables represent the most commonly used method in

presenting data in descriptive research (Kathuri, 2004). Associations between selected variables were tested using chi square.

Quantitative data was evaluated, classified into logical thematic categories based on the objectives and then coded. The analysis of the structured items was done using the Statistical Package for Social Sciences (SPSS). Unstructured items were analyzed manually along major concepts and themes, and the results presented using descriptive statistics. Conclusions were drawn from the analyzed data, leading to recommendations and suggestions for further improvement of the alcohol use and preventive measures to be put in place in various universities. Data analysis for qualitative data was done using deductive approach which involved grouping of the data and looking out for similarities and differences. This was because the qualitative data was smaller component of the quantitative data.

Ethical Considerations

Cognizance was taken of the fact that the study was investigating very sensitive issues likely to elicit hostility, insecurity or concealment of the real data required from the participants. Confidentiality and privacy was therefore ensured for subjects to safeguard their interests. Permission to carry out the research was sought from the participants, the university principals, and relevant authorities, including the Ministry of Education, Science and Technology (MOE-NACOSTI). The researcher assured participants of strict confidentiality in relation to information obtained during the research. Thus willing participants were required to make informed decisions.

Summary

The chapter looked into the methodology for which the study variables were used to get the findings of the study. This chapter outlined the methodology used in

the research. It described the type of research design that was used, the target population, sample size, sampling design, and pre testing, research analysis and presentation of the research findings. It has further described the procedure used in collecting the research data as well as the data collection instruments. It also spelt out an indication of how the collected data will be analyzed as well as the expected output. The study adopted descriptive and qualitative research design in the process of presenting the research findings in relation to the factors leading to alcohol use by undergraduate students at the university.

CHAPTER FOUR: PRESENTATION, DATA ANALYSIS AND INTERPRETATION

Introduction

This chapter provides the analysis, presentation and interpretation of results. The objective of the study was to establish the factors leading to alcohol use by university undergraduate students. Results are presented objectively. Initially, the targeted respondents for the study were 290. However, duly returned questionnaires were 198 which translate to a response rate of 68%.According to Mugenda and Mugenda (2003), a response rate of over 50% is satisfactory thus the study's response rate is considered a successful response rate.

Characteristics of the Study Sample

This section provides the basic information related to the respondents. The results are presented in the form of graphs and pie charts.

Gender of the Respondents

The respondents were asked to indicate their gender and from the results in Figure 4.1, the study found out that majority (165) of the respondents which translates to 83% was male. On the other hand, women represented 17% of the target sample. These results imply that it was easier getting access of male respondents than female. Further, men who are more of alcohol users than women confirmed that the information derived from them was objective enough for the study.

Female
33
17%

Male, 165, 83%
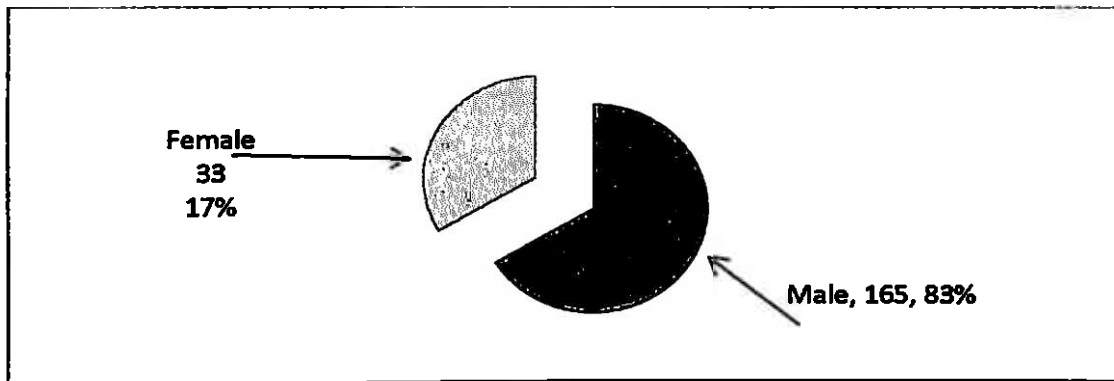
Figure 4.1: Gender of Respondents

Respondents' Age Bracket

Respondents were asked to indicate their ages. From Figure 4.2, majority of the respondents were between the ages of 18 to 25 years as shown by 55% representation of the sample. The study found out that, 45% of the respondents were between the ages of 26 to 35 years. This results show that majority of the students in undergraduate programs are youths. The results also provide the statistics on what age group dominates the undergraduate programs.

26 to 35, 90,
45%

18 to 25, 108,
55%
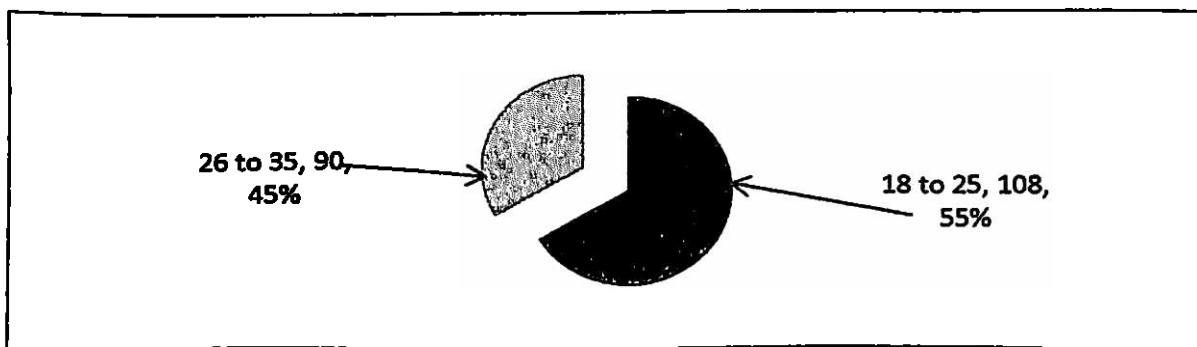
Figure 4.2: Age Bracket

Respondents' Undergraduate Program

Figure 4.3 presents results on the respondents' undergraduate program in University. Results show that majority of the respondents were from the electrical and electronics program as represented by 25.8% of the sample. Twenty Four point Two

percent of the respondents were from the civil engineering program, 22.2% were mechanical engineering students, 15.7% of the respondents were students from the environmental and bio-systems course program while 12.1% represented students from the structural engineering program. These results indicate the undergraduate programs in the university are evenly selected by the students and there is no huge dominance of students in a particular course program.
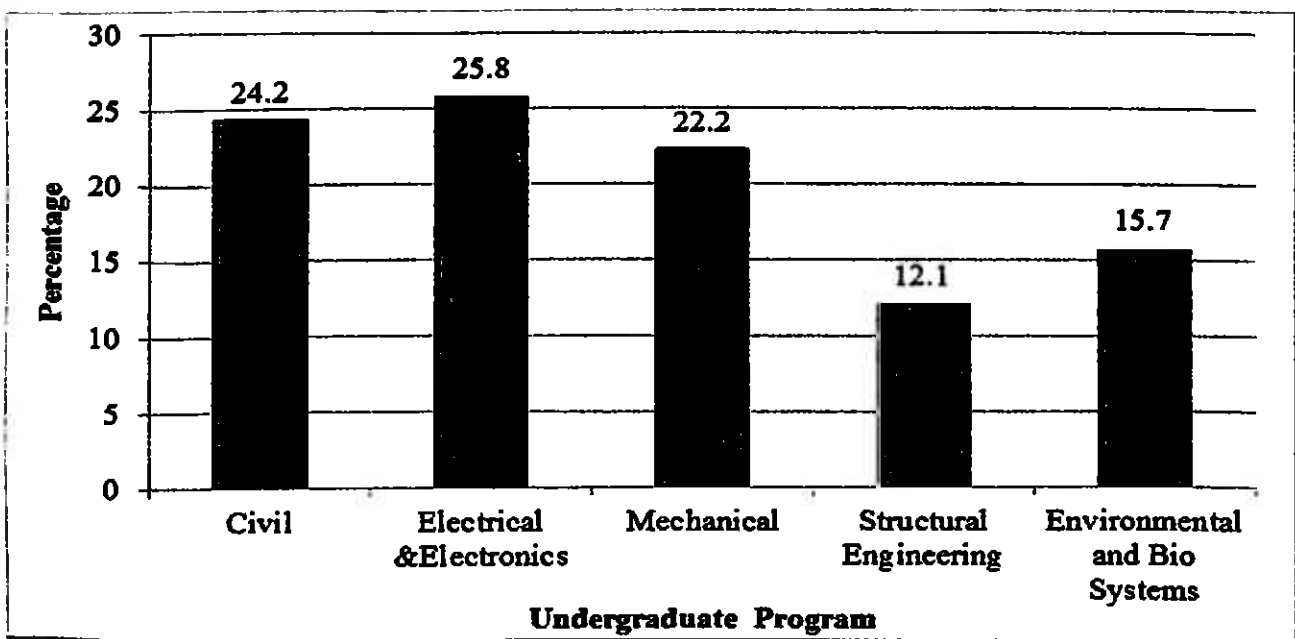
Figure 4.3: Undergraduate Program

Respondents' Year of Study

Results from the 198 respondents on year of study are presented in Figure 4.4. Sixty two (62) of the respondents are in the second year, Fifty eight (58) of the students are 3rd year, 35 of the respondents are in 4th year, 22 were in first year, and 16 of the respondents were in the 5th year and 5 in the sixth year. These results show that it was easy to get students in the first three years in university. This may be explained by the voluminous academic work of the students after 3rd year.
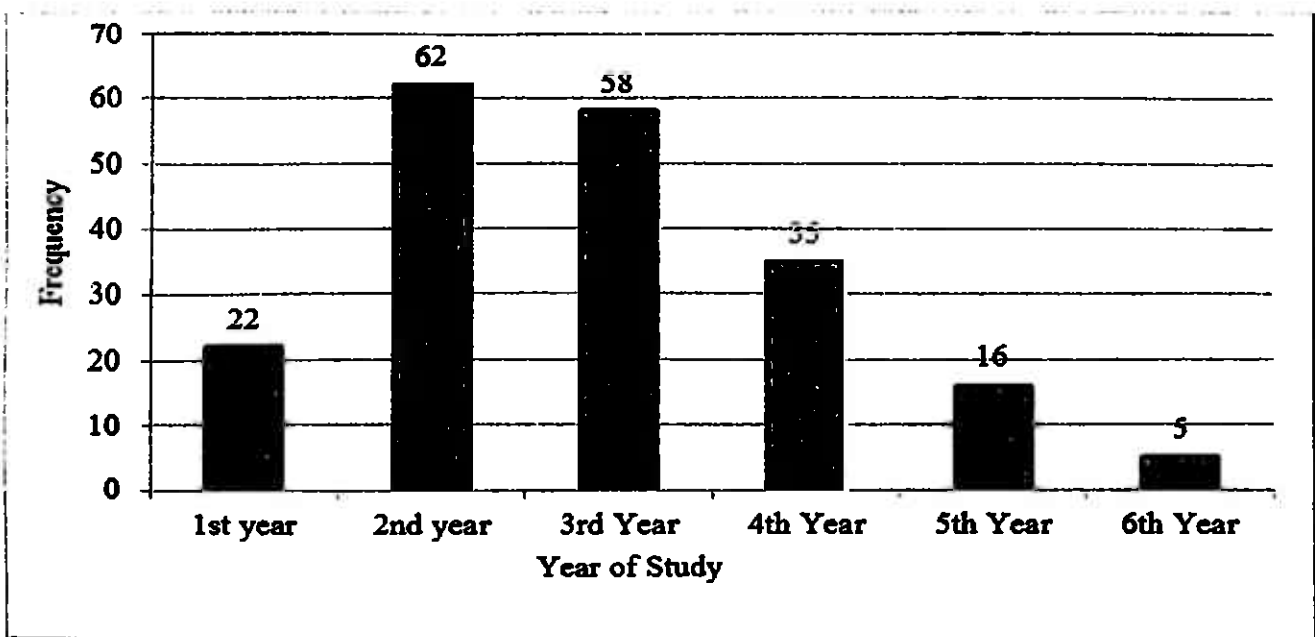
Figure 4.4: Students' Year of Study

Chi-Square Test for Demographics

Table 4.1 presents results of the demographic chi-square test. Results show that the relationship between gender and alcohol use is insignificant (X^2=0.816, p=0.184). The finding was also supported by an insignificant correlation coefficient (R=-0.064, p=0.369). Further results show that the relationship between age bracket and alcohol use is insignificant (X^2=0.225, p=0.635). The finding was also supported by an insignificant correlation coefficient (R=-0.034, p=0.637). Additional results

show that the relationship between undergraduate program and alcohol use is insignificant (X^2=4.385, p=0.356)). The finding was also supported by an insignificant correlation coefficient (R=-0.098, p=0.169). Results show that the relationship between undergraduate program and alcohol use is insignificant (X^2=5.929, p=0.313). The finding was also supported by an insignificant correlation coefficient (R=-0.129, p=0.070).

Table 4.1

Chi Square Statistics for Demographics against Alcohol Use

Demographic		No	Yes	Total	Chi Square	Correlation
Gender	Male	47	118	165	X^2=0.816	R=-0.064
	Female	12	21	33	(p=0.366)	(p=0.369)
Total		59	139	198		
Age Bracket	18 to 25	34	75	109	X^2=0.225	R=0.034
	26 to 35	25	64	89	(p=0.635)	(p=0.637)
Total		59	139	198		
Undergraduate Program	Civil	10	38	48		
	Electrical & Electronics	18	33	51		
	Mechanical	11	33	44	X^2=4.385	R=-0.098
	Structural Engineering	8	16	24	(p=0.356)	(p=0.169)
	Environmental and Bio Systems	12	19	31		
Total		59	139	198		
Year of Study	1st year	4	18	22		
	2nd year	15	47	62		
	3rd Year	18	40	58	X^2=5.929	R=-0.129
	4th Year	15	20	35	(P=0.313)	(p=0.070)
	5th Year	6	10	16		
	6th Year	1	4	5		
Total		59	139	198		

This section provides results from descriptive analysis of the factors that lead to alcohol use among undergraduate students and the mitigation strategies that can be used among the students. The results are presented in the form of frequencies and percentages.

Students' Use of Alcohol

Table 4.2 below presents the results on the use of alcohol among university students. Majority of the respondents (70%) indicated that they take alcoholic beverages. Fifty one percent of the respondents consume wines and spirits and 53% consume beer. The results also indicate that majority, 77% of the students do not take traditional brews and 86% also indicated that they do not take just any kinds of alcoholic drinks, which means they are specific about the alcohol type they consume. Additionally from the results, 33% of the students indicated that they consume alcohol at least once a week. These results imply that the most consumed beverage for those who take alcohol is beer given that it had majority users of 53%.

Table 4.2 *Use of Alcohol*

Alcohol Use	N=198 Frequencies	Percentage
Indicate if you use any alcoholic beverages		
No	59	30%
Yes	139	70%
Do you use wines and spirits		
Yes	100	51%
No	97	49%
Do you take beer		
Yes	105	53%
No	93	47%
Do you take traditional brew		
Yes	43	23%
No	153	77%
Do you take all types of alcoholic beverages		
Yes	24	14%
No	171	86%
How frequent do you use the alcoholic beverage		
Everyday	23	12%
At least once a week	66	33%
Once Every Three Months	40	20%
Sometimes in a Year	12	6%
Never	57	29%

Psychological Factors

One of the objectives of the study was to examine the psychological determinants leading to alcohol use among undergraduate students. The results show that 56% of the respondents disagree that there is nothing wrong in taking alcohol. 37% of the respondents agree that the intake of alcohol negatively affects their academic performance in school. Additional results indicate that students who use alcohol are more inclined to anti-social behavior as supported by an overall agreed responses of 43%. Further, the results show that 54% of the respondents agreed that certain personality types are highly susceptible to alcohol use and 53% agreed that alcohol use is influenced by what one expect to happen when consumed, for example, a feel of relaxation, courage and sociability.

Table 4.3

Psychological Factors

Statement	Frequencies	Percentage
There is nothing wrong with taking alcohol		
Strongly Disagree	45	23%
Disagree	66	33%
Neutral	23	12%
Agree	23	12%
Strongly Agree	41	20%
Alcohol negatively affects academic performance		
Strongly Disagree	28	14%
Disagree	47	24%
Neutral	54	27%
Agree	58	29%
Strongly Agree	11	6%
Students who use alcohol are more inclined to anti-social behavior		
Strongly Disagree	14	7%
Disagree	18	9%
Neutral	82	41%
Agree	68	34%
Strongly Agree	15	9%
Non Response	1	0.01%
There are certain personality types that are highly susceptible to alcohol use		
Strongly Disagree	10	5%
Disagree	23	12%
Neutral	58	29%
Agree	71	36%
Strongly Agree	35	18%
Non Response	1	0.01%
Alcohol use is influenced by what one expect will happen when consumed for example a feel of relaxation, courage and sociability		
Strongly Disagree	18	9%
Disagree	42	21%
Neutral	34	17%
Agree	53	27%
Strongly Agree	50	26%
Non Response	1	0.01%

Binary logistic regression for psychological factors

Results in Table 4.4 present the binary logistic regression for psychological factors. Respondents agreeing with the statement that "there is nothing wrong with taking alcohol" were associated with higher probability/odds of being alcohol users. This is shown by an odd ratio of 1.146 which reveals that the odds are higher by 1.146 for those agreeing compared to those disagreeing with the statement. However, the relationship was not significant as shown by a p-value of 0.285. Respondents who agreed with the statement that academic performance is negatively affected by alcohol were linked to lower odds of being alcohol users as shown by an odd ration of 0.611. This relationship was significant as the p value was 0.006. Respondents agreeing with the statement that per takers of alcohol are inclined to anti-social behavior are related to alcohol consumers as shown by an odd ration of 1.25. A p value of 0.19 indicates that there is no significant relationship between the two.

Further, results indicate that respondents who agreed to the statement that "there are certain personality types that are highly susceptible to alcohol use" were associated with higher odds of taking alcohol as the odds ratio was 1.43. The relationship was significant as the p value was 0.038. Results also indicate that respondents who agreed to the statement that "alcohol use is influenced by what one expects will happen when consumed for example a feel of relaxation, courage and sociability" were associated with lower odds of taking alcohol as the odds ratio was. 0.764. The relationship was insignificant as the p value was 0.057.

Table 4.4

Binary Logistic Regression for Psychological Factors

Statement	Beta	S.E.	Wald	df	Sig.	Exp(B)=Odd Ratio
There is nothing wrong with taking alcohol	0.136	0.127	1.145	1	0.285	1.146
Alcohol negatively affects academic performance	-0.492	0.178	7.593	1	0.006	0.611
Students who use alcohol are more inclined to anti-social behavior	0.223	0.17	1.716	1	0.19	1.25
There are certain personality types that are highly susceptible to alcohol use	0.358	0.173	4.297	1	0.038	1.43
Alcohol use is influenced by what one expect will happen when consumed for example a feel of relaxation, courage and sociability	-0.27	0.142	3.615	1	0.057	0.764
Constant	0.94	0.782	1.444	1	0.229	2.561

Sociocultural Factors

Table 4.5 presents results on the impact of socio cultural factors on alcohol use among university students. Results show that 53% of the respondents fathers are partakers of alcohol, 84% indicated that their mothers do not use alcohol. Eighty three percent of the respondents' siblings do not use alcohol and 80% indicated that no other family member is an alcohol drinker.59% of the respondents indicated that alcohol is always available at home, further, 65% of the respondents indicated that there are no members of the family struggling with alcohol use. Cultural beliefs and practices, peer influence and university environment factors are some of the reasons why young people in university use alcohol. This is supported by an agreed response rate of 74%, 69% and 78% respectively. Additionally, stress was found not to be a major reason for alcohol intake as supported by a disagreed response rate of 54%. Religion was also another factor which was found to restrain the use of alcohol as supported by 76% response rate. Culture is believed to be held for purposes of protecting rules and regulations of a community. Interestingly, these results revealed that some cultural practices contribute to alcohol usage. Results also revealed that stress can be a cause for excessive consumption of alcohol. The environment of a campus is critical in shaping the behavior of the students; it is evident from the results that universities provide a less strict environment, rules with less vigor thus giving the students all kinds of freedom.

Table 4.5

Sociocultural Factors

Statement	Frequencies	Percentage
Does your father use alcohol		
Yes	105	53%
No	93	47%
Does mother use alcohol		
Yes	29	15%
No	167	84%
Non Response	2	1%
Does any of your siblings use alcohol		
Yes	31	16%
No	165	83%
Non Response	2	1%
Any other family members who use alcohol		
Yes	33	17%
No	159	80%
Non Response	6	3%
Was alcohol brewed or available at home		
Yes	82	41%
No	116	59%
Is any member of your family struggling with alcohol abuse		
Yes	66	33%
No	128	65%
Non Response	4	2%
Do cultural beliefs and practices advance usage of alcohol by young people		
Yes	147	74%
No	51	26%
Do you think students resort to alcohol use to deal with life stresses		
Yes	90	46%
No	107	54%
Non Response	1	0%
Does the university environment favors the use of alcohol among students		
Yes	154	78%
No	44	22%
Peer influence is the cause of alcohol use among university students		
Yes	137	69%
No	58	29%
Non Response	3	2%
Do you think religion restrains alcohol use		
Yes	150	76%
No	45	23%
Non response	3	1%

Binary logistic regression for sociocultural factors

Results show that the respondents who indicated that their fathers are alcohol consumers have a low likelihood of taking the alcohol beverage as presented by an odd ratio of 0.359 and a significant value of 0.018. The extent of agreement from the respondents on whether the mothers drink alcohol present a less likelihood of alcohol use as indicated by an odds ratio of 0.158.This relationship is also significant as presented by a mean of 0.033. Respondents who agreed to the statement that their siblings use alcohol are likely never to take alcohol as shown by an odds ratio of 0.781. However, the relationship was not significant as shown by a p value of 0.735. Results also shows that the respondents who indicated that other members of the family use alcohol have a lower likelihood of taking alcohol beverages as presented by an odd ratio of 0.65, However , this relationship was not significant as the p value was 0.551. Respondents who agreed that alcohol brewed or available at home were less likely to per take alcohol as shown by an odds ratio of 0.464.This relationship was however insignificant as indicated by a p value of 0.195. On the question of whether there is a family member struggling with alcohol abuse, respondents who agreed to the statement are less likely to take alcohol as shown by an odds ratio of 0.071. This relationship was however significant as shown by a p value of 0.001.

Respondents agreed to the statement that peer influence is the cause of alcohol and it has a lower connection to take alcohol as shown by an odds ratio of 0.69. However, the relationship was not significant as shown by a p value of 0.536. Results also show that the respondents who disagreed that students resort to alcohol use to deal with life stress have a higher likelihood of consuming alcohol as presented by an odd ratio of 1.587however; this relationship was not significant as the p value was 0.312. Respondents who agreed that the university environment favors the use of

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alcohol are higher connected to alcohol intake as shown by an odds ratio of 3.435.This relationship was also significant as indicated by a p value of 0.05. Respondents agreeing to the statement that cultural beliefs and practices advance the usage of alcohol by young people have a lower probability of taking alcohol as indicated by an odds ratio of 0.301 and a significant p value of 0.02. Another question was whether religion strains alcohol use, respondents who agreed to the statement have a higher probability of taking alcohol as shown by an odds ratio of 2.062. This relationship was however insignificant as shown by a p value of 0.187.

Table 4.6

Binary Logistics of Sociocultural Factors

Statement	B	S.E.	Wald	df	Sig.	Exp(B)=Odd Ratio
Does your father use alcohol	-1.023	0.433	5.583	1	0.018	0.359
Does your mother use alcohol	-1.844	0.865	4.546	1	0.033	0.158
Does any of your siblings use alcohol	-0.248	0.73	0.115	1	0.035	0.681
Any other family members who use alcohol	-0.431	0.723	0.356	1	0.551	0.65
Was alcohol brewed or available at home	-0.768	0.592	1.679	1	0.195	0.464
Is any member of your family struggling with alcohol abuse	-2.649	0.728	13.227	1	0.011	0.071
Is Peer influence is the cause of alcohol use among university students	-0.37	0.599	0.382	1	0.536	0.69
Do you think students resort to alcohol use to deal with life stresses	0.462	0.457	1.021	1	0.312	1.587
Does the university environment favor the use of alcohol among students	1.234	0.629	3.849	1	0.05	3.435
Do cultural beliefs and practices advance usage of alcohol by young people	-1.199	0.517	5.388	1	0.02	0.301
Do you think religion restrains alcohol use	0.724	0.549	1.739	1	0.187	2.062
Constant	6.14	1.238	24.605	1	0	464.23

Situational Factors

Another objective of the study was to identify situational determinants on alcohol usage. The results are presented in Table 4.7 below. Results show that life events which contribute most to use of alcohol are in club events as shown by 43% responses, followed by sports events. Birthday parties and cultural ceremonies with the lowest event are in weddings. These results imply that alcohol consumption is more in clubs.

Table 4.7

Situational Factors

Life events which contribute MOST to use of alcohol among students	Frequency	Percentage
Cultural Ceremonies	28	14%
Birthday Parties	32	16%
Weddings	17	9%
Sports Events	34	17%
Club parties	86	43%
Death of a close friend	1	1%

Content Analysis on How Financial resources Lead to alcohol Use

Availability of financial resources facilitates alcohol use especially for students who barely work to make a living. However, the few who work, find

stimulation in spending their hard earned money in alcohol consumption. Availability of financial resources is associated with the patterns of alcohol drinking by the user and the level of individual alcoholism.

Students Involvement in the University's "Alcohol Use Awareness Programs"

Table 4.8 presents results on the various interventions that students have been involved in the university to reduce alcohol consumption. Results indicate that 57% of the respondents are not involved in alcohol awareness activities programs occasionally. Training programs and seminars are usually held to sensitize students on the effects of alcohol as supported by 49% agreed responses. Forty five percent of the respondents were not sure whether guidance and counseling is offered to alcohol users to facilitate behavioral change. The university has implemented alcohol abuse prevention measures as supported by 49% respondents. Respondents disagreed that awareness of alcohol use is done through passive receipt of health information in the study areas and use of Information, Education, and Communication (IEC) material as shown by a disagreed response rate of 37%. Forty percent of the respondents agreed that the regulations on alcohol use are clear, concise, and unambiguous

Table 4.8

Alcohol Use Interventions

Statement	Frequencies	Percentage
Students are involved in alcohol awareness activities programs occasionally		
Strongly Disagree	59	31%
Disagree	50	26%
Neutral	28	14%
Agree	25	13%
Strongly Agree	32	16%
Non Response	4	0.02%
Training programs and seminars are usually held to sensitize students on the effects of alcohol		
Strongly Disagree	34	17%
Disagree	63	32%
Neutral	53	27%
Agree	41	21%
Strongly Agree	5	3%
Non Response	2	0.01%
Guidance and counseling is offered to alcohol users to facilitate behavioral change		
Strongly Disagree	12	6%
Disagree	37	19%
Neutral	89	45%
Agree	43	22%
Strongly Agree	16	8%
Non Response	1	0.00%
The university has implemented alcohol abuse prevention measures		
Strongly Disagree	15	8%
Disagree	41	21%
Neutral	40	20%
Agree	68	34%
Strongly Agree	30	15%
Non Response	4	0.02%
The university alcohol awareness programme is well publicized among students		
Strongly Disagree	47	24%
Disagree	60	30%
Neutral	42	21%
Agree	32	16%
Strongly Agree	15	8%
	2	0.01%

Awareness of alcohol use is done through passive receipt of health information in the study areas and use of Information, Education, Communication (I.E.C) material

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Statement	Frequencies	Percentage
Strongly Disagree	22	11%
Disagree	52	26%
Neutral	70	35%
Agree	45	23%
Strongly Agree	8	4%
Non Response	1	0%
The regulations on alcohol use are clear, concise, and unambiguous		
Strongly Disagree	30	15%
Disagree	27	14%
Neutral	59	30%
Agree	54	27%
Strongly Agree	26	13%
Non Response	2	0.01%

Binary Logistics Regression

Results show that the respondents who indicated that students are involved in alcohol awareness activities programs occasionally have a less probability of taking the alcohol beverage as presented by an odd ratio of 0.914 and a non-significant value of 0.533. Respondents' agreement that training programs and seminars be held to sensitize students on the effects of alcohol, present are less likely to use alcohol as indicated by an odds ratio of 0.723this relationship is also significant as presented by a mean of 0.086. Respondents agreeing to the statement that guidance and counseling is offered to alcohol users to facilitate behavioral change have a lower probability of consuming alcohol as shown by an odds ratio of 0.811. However, the relationship was not significant as shown by a p value of 0.211. Results also shows that the respondents who indicated that the university has implemented alcohol abuse prevention measures are more likely to consume alcohol as presented by an odd ratio of 1.266, however, this relationship was not significant as the p value was 0.103.

Respondents who agreed that the university alcohol awareness programme is well publicized among students had a higher probability of taking alcohol as shown

by a ratio of 1.157, this relationship was however insignificant as indicated by a p value of 0.336. On the question of whether there is awareness of alcohol use, done through passive receipt of health information in the study areas and use of Information, Education, and Communication (I.E.C) Material, respondents who agreed to the statement have a higher probability to take alcohol as shown by an odds ratio of 1.036. This relationship was however not significant as shown by a p value of 0.843.Further, respondents who agreed that regulations on alcohol use are clear, concise and unambiguous have a lower probability/odds in taking alcohol as revealed by an odds ratio of 0.82. However, the relationship was insignificant as shown by a p value of 0.167.

Interventions towards Mitigating Alcohol Use

This section provides results on the strategies that could help in reducing the alcohol consumption among university students. The results were analyzed contently and quantitatively.

Table 4.9

Interventions towards Alcohol Use

Statements	B	S.E.	Wald	df	Sig.	Exp(B) =Odd Ratio
Students are involved in alcohol awareness activities programs occasionally	-0.09	0.144	0.388	1	0.533	0.914
Training programs and seminars are usually held to sensitize students on the effects of alcohol	-0.325	0.189	2.942	1	0.086	0.723
Guidance and counseling is offered to alcohol users to facilitate behavioral change	-0.21	0.168	1.565	1	0.211	0.811
The university has implemented alcohol abuse prevention measures	0.236	0.145	2.652	1	0.103	1.266
The university alcohol awareness programme is well publicized among students	0.146	0.152	0.924	1	0.336	1.157
Awareness of alcohol use is done through passive receipt of health information in the study areas and use of (I.E.C) Information, Education, Communication material	0.035	0.177	0.039	1	0.843	1.036
The regulations on alcohol use are clear, concise, and unambiguous	-0.198	0.144	1.909	1	0.167	0.82
Constant	1.987	0.835	5.658	1	0.017	7.293

Content Analysis on what would help Students avoid Problems Related to Alcohol

Use

Majority of the respondents indicated that it alcohol intake has not been a major alarming to them, however concerns of increase in alcohol intake in universities should be best managed by the institution management. From the responses, this can be carried out through establishing strict rules which do not encourage alcohol intake among students residing within the university institution.

Responses on the strategies in place for mitigating the problem of alcohol use are through seminars on adverse effects of alcohol, guidance and counseling activities. The most recent development according to the responses received is that of an alcohol control unit which is not very well elaborate, but with policies concerning the same in place.

Remedial Measures

This section provides the analysis of the results on the extent of which the university uses the remedial measures to tackle the problems of alcohol abuse. The results are presented in Table 4.10. 62% of the responses show that guidance counseling on alcohol use is a measure that is minimally used. Rehabilitation of alcohol users is a method that university students do not use to control alcohol abuse. Treatment as remedial measure for alcohol users is used as shown by an agreed response of 34%; however, 46% of the respondents did not know whether this method was used as a remedial measure. Restricting the use of alcohol in the institution is a remedial measure that is used as revealed by 50% agreed response rate. Further, health promotion of alcohol users among other students is a remedial measure used in curbing alcohol abuse. These results imply that in institutions such as universities, where the student population is huge, the best remedial measures to curb alcohol

abuse include; health promotion which can be done through health education talks and peer talks to the students. Having strict rules and regulations within the institution on the alcohol taking, has a high impact of regulating alcohol use by the students.

Table 4.10

Remedial Measures

Statement	Frequencies	Percentage
Guidance and Counseling		
Never Used	48	24%
Minimally Used	75	38%
Do not know	22	11%
Used	27	14%
Highly Used	26	13%
Non Response	2	0.01%
Rehabilitation		
Never Used	54	27%
Minimally Used	48	24%
Do not know	59	30%
Used	28	14%
Highly Used	8	4%
Non Response	1	0.00%
Treatment		
Never Used	10	5%
Minimally Used	29	15%
Do not know	91	46%
Used	52	26%
Highly Used	15	8%
Non Response	1	0.00%
Restricting use of alcohol use in the institution		
Never Used	17	9%
Minimally Used	31	16%
Do not know	51	26%
Used	71	36%
Highly Used	27	14%
Non Response	1	0.01%
Health promotion		
Never Used	44	22%
Minimally Used	23	12%
Do not know	30	15%
Used	58	29%
Highly Used	42	21%
Non Response	1	0.01%

Binary Logistics Regression for Remedial Measures

Results show that the respondents who indicated that guidance and counseling is a remedial measure to reduce alcohol abuse have a less probability of taking the alcohol beverage as presented by an odd ratio of 0.8 and a non-significant relationship as the p value given is 0.065. Respondents 'agreement that rehabilitation of alcohol users is an effective remedial measure has a higher probability of using alcohol. This is indicated by an odds ratio of 1.005, this relationship is insignificant as shown by a p value of 0.973.

Respondents agreeing to the statement that treatment could be a measure of reducing alcohol use have a lower probability of consuming alcohol as shown by an odds ratio of 0.948. However, the relationship was not significant as shown by a p value of 0.759. Results also shows that the respondents who agreed that restricting use of alcohol use in the institution would be a great remedial measure for alcohol abuse are more likely to consume alcohol as presented by an odd ratio of 0.938; however, this relationship was not significant as the p value was 0.664. Those who viewed health promotion, as a remedial measure for alcohol consumption, have a lower probability of consuming alcohol.

Table 4.11

Binary Logistics Regression for Remedial Measures

Statements	B	S.E.	Wald	df	Sig.	Exp(B) =Odd Ratio
Guidance and Counseling	-0.223	0.121	3.398	1	0.065	0.8
Rehabilitation	0.005	0.144	0.001	1	0.973	1.005
Treatment	-0.053	0.174	0.094	1	0.759	0.948
Restricting use of alcohol use in the institution	-0.064	0.148	0.189	1	0.664	0.938
Health promotion	-0.121	0.114	1.123	1	0.289	0.886
Constant	2.199	0.755	8.488	1	0.004	9.017

Responses from Interview Guide

Interviews were conducted On the question of factors that cause alcohol use among students, the answers that best informed the study objectives are shown below in its reported form;

Interview Guide Discussion on Psychological Factors

"The factors that lead to alcohol use may include peer influence, family background of a student and stress related to family or academics."

"The external environment has a high impact of promoting alcohol use among university students. For instance, a club within the premises of Kenya Broadcasting Corporation, within the neighborhood of the university campus, sells alcoholic drinks at subsidized prices, which increases the chances of students purchase the same. Further, the content received from the media, tends to affect perceptions of some students towards alcohol."

Interview Guide Discussion on Socio-cultural Factors

Opinions of the percentage of undergraduate students who take alcohol are approximated by majority of the respondents to be between 20 to 30%. Majority of the respondents also indicated that the number of alcohol users is not overwhelming. This implies that the number of students consuming alcohol is not large and the population of the same can be managed when it comes to reducing the level of alcohol abuse in the learning institution. Additionally, majority alcohol users are students in the 2nd year, 3rd year and few in the 4th year. These results imply that alcohol use for some students' decreases as one move higher in the academic ladder.

Interview Guide Discussion on Situational Factors

Respondents indicated that the drinking trend is getting more popular. The following response presents the best response that was captured in the interview guide.

"Drinking trend of alcohol among students, especially those in universities and colleges is growing popular. Events, such as parties, elections period promote the drinking of alcohol. You find that in most parties such as wedding, birthday or graduation parties, alcohol is always included as a way of celebration"

Responses from Focus Group Discussion

The focus groups were divided into two and the responses of the two groups were merged to present a discussion that best addresses the objectives of the study. The groups indicated that the major contributions of alcohol use include; peer pressure, stress relief, events such as parties, parental or family influence, financial abilities and changes that an individual goes through to adopt to the environment.

Focus Group Discussion on Psychological Factors

The results on the effects of perception, personality traits and cognition factors on alcohol use are contently analyzed from results of focused group discussion. Additionally, some people are quickly addicted to alcohol over a very short period of time, thus it is the cognitive behavior that drives this response. Other factors such as stress such as sickness, financial constraints without re-evaluating alternative options may contribute to use of alcohol among individuals with the thought that alcohol will generate a calm feeling

Focus Group Discussion on Sociocultural Factors

Results from focused group discussion showed that Sociocultural factors such as rural to urban migration can cause the individual to experiment on the drinking lifestyle in the urban areas. Further results show that lack of strictness from the parents in terms of regulation of freedom on their children leads to high likelihood of them becoming alcohol users. Additionally, the lifestyle of a family where one is brought upon affects the perception towards alcohol use. Another factor includes the desire of satisfaction of oneself to feel a sense of belonging; especially in a group where the majorities are alcohol users.

Focus Group Discussion on Situational Factors

The results from focus group discussion show that situations such as; loss of family member or friends, occasions such as romantic dates, parties, life stresses are some of the major causes of alcohol use. Further results indicates that proximity of the universities to town provides easy access to night clubs, cheap liquor stores and ease in mobility are factors which promote increase use of alcohol.

Focus Group Results on Remedial Measures

To mitigate the excessive use of alcohol take by students, the groups suggested that there should be some awareness and sensitization of alcohol use made at least twice a year in universities to build up knowledge to the students on the adverse effects of alcohol consumption. Students' mentorship and proper parenting skills are some of the effective remedial measures. Initiative from the students in establishing students associations or groups that helps reformation of alcohol users is also effective enough.

Summary of the Key Findings

Findings from the study show that university students view alcohol intake as a wrong decision which negatively affects performance of users in academics.

That a relationship between stress and alcohol consumption is significant, meaning that there is a relationship between the two.

Results also led to the finding that students with anti-social behavior are more likely to succumb quickly to alcohol use.

The study found that majority of the respondents' fathers use alcohol more than their mothers.

Further, factors such as cultural beliefs and practices, religion, peer influence and university environmental factors are some of the reasons why students use alcohol more, the findings further indicate that availability of financial resources contribute to alcohol use.

The findings also showed that family background and lifestyle, parenting skills and desire to have a sense of belonging hence peer pressure, are some of the factors that lead to the increase in alcohol use

Focus group discussions and interview guide responses found that peer pressure, family lifestyle or background, and life stress related issues are some of the psychological factors that influence alcohol use.

CHAPTER FIVE: DISCUSSIONS, CONCLUSION AND RECOMMENDATIONS.

Introduction

The chapter provides a summary of the results findings, conclusion and recommendations to policy, practice and academia. This presents the summary of findings from the analyzed results. The presentations of the findings are in line with the objectives of the study.

Psychological Determinants and Alcohol Use

One of the objectives of the study was to examine the psychological determinants leading to alcohol use among undergraduate students. Findings from the study show that students from the university view alcohol intake as a wrong decision which negatively affects performance of users in academic work. Results also led to the finding that anti-social students are more likely to succumb quickly to alcohol use. Certain personality traits (predisposition), perception, and cognition are factors that contribute to the decision on whether to consume or not to consume alcohol. Focus group discussions and interview guide responses found that peer pressure, family lifestyle or background and stress related issues are some of the psychological factors that influence alcohol use.

The relationship between stress and alcohol consumption is significant, meaning that there is a relationship between stress and alcohol consumption. Therefore, the findings of this study support those of Pohorecky (1991); Pierce et al. (1994) and Seeman and Seeman (2002) who found that financial difficulties may be related to alcohol consumption. Pierce et al. (1994) were able to show the relationship between acute changes in marital and employment status recent divorce or death of a partner; job loss and chronic status being divorced or widowed and unemployment.

Sociocultural Factors that Lead to Alcohol Use

Another objective of the study was to establish the sociocultural factors that have led to the use of alcohol. The study found that majority of the respondents' fathers use alcohol more than their mothers. Family members and siblings of majority of the respondents were also found not to be much of alcohol users. Further, factors such as cultural beliefs and practices, religion, peer influence and university environmental factors are some of the reasons why young people use alcohol more. The environmental factors such as rural to urban migration are also a factor that can lead to alcohol use. Findings also show that family background and lifestyle, parenting skills and desire to have a sense of belonging are some of the factors that lead to the increase in alcohol use among university students.

Beliefs about the effects of alcohol on the students have been identified as a key component in explaining alcohol dependence. Therefore the findings of this study support those of (Cruz & Dunn, 2003; Fromm & Dunn, 1992; Goldman, 1999a; Rather & Goldman, 1994) who state that memories related to alcohol use can influence how an individual thinks about alcohol and its effects, and therefore indirectly influences how much an individual consumes and the pattern of drinking that is developed.

Further, the findings of the study support those of Donovan (2000) who stated that the factors influencing underage and young adult use of alcohol include; the curiosity novelty of the alcohol experience, and the 'psycho-developmental' significance of alcohol consumption for younger people. Many studies have identified personal characteristics that may increase the likelihood that a young person will engage in underage drinking. Impulsive or excitement-seeking youth and young adults are more likely to drink alcohol (Diemen et al., 2008). This finding supports

those of the current study. Freedom given to majority of students by their parents is also one of reasons that promote alcohol use. This findings support those of White and Hayman (2006) who stated that parents' attitudes and behavior with respect to alcohol usage are a major influence on at least early drinking patterns, before peer influences become more influential. According to Sondhi and Turner (2011) children of heavy drinking parents through imitation/modeling, and children of strictly prohibitive parents through reactance and defiance of authority, appear to have a higher risk of drinking excessively.

<p align="center">Situational Factors Leading To Alcohol Use</p>

Another objective of the study was to identify situational determinants on alcohol usage. The findings indicate that events such as birthday parties, cultural ceremonies, weddings create the chances for alcohol consumption. Further results indicate that availability of financial resources, loss of family member or friends, occasions such as romantic date, parties, life stresses and media advertisements and bill board advertisement are some of the major causes of alcohol use.

The findings of this study support those of Donovan (2000) stated that the factors influencing underage and young adult drinking are similar in that the same mix of situational factors such as exposure to alcohol drinking parties, weddings and funeral events. Further this results support those of (Hajema & Knibbe 1998; McMorris & Uggen 2000) who viewed that alcohol consumption levels can vary when individuals are playing different social roles when in different moods, and when drinking in different venues. The drinking occasion is particularly relevant, with parties being strongly associated with alcohol use (Caldwell & Darling 2001; Smeaton et al. 2001), especially when drinking games are played (Engs & Hanson, 1999). These studies support the findings of this study. Further findings from Villani

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(2001) support those of the current study as the researcher emphasizes that advertising and marketing practices in broadcast and print media promote use of alcohol. Practices such as advertisement appearing on television, radio, newspapers, billboards, posters give way to alcohol use.

Strategies for Combating/Mitigating Alcohol Use

The final objective of the study was to identify how alcohol use can be mitigated. Results indicate that institutions are in the best position to take control of alcohol intake within the universities. It was found that the University has indeed put in place systems of intervention on alcohol use by students. This can be done through establishing strict rules which do not encourage alcohol intake among students residing within the university campuses. Further mitigation measures derived from the results are through awareness and sensitization seminars on adverse effects of alcohol, guidance and counseling activities. Descriptive results show that the most used remedial measures in mitigating alcohol use include; restricting the use of alcohol in the institution and health promotion of alcohol users among other students which can be done through health education talks and peer talks to the students. The findings of this results support those of White, (2006) who stated that through enforcement of existing laws and rules is one major step that could be taken to mitigate alcohol use consumption.

Conclusions

The aim of this study was to establish the factors leading to alcohol use by undergraduate students. Based on the findings, the conclusions were made and are presented according to the objectives of the study.

Psychological Determinants and Alcohol Use

Conclusions drawn from the study show that personality traits, perception and cognitive behavior are factors that contribute to alcohol use. Based on these findings, it can be concluded that the nature and magnitude of acculturation is a major contributor of behavioral tendencies that lead to alcoholism. Therefore, childhood socialization is important and related to adult hood behaviors.

Sociocultural Factors and Alcohol Use

Conclusions also show that family background and lifestyle, parenting skills and desire to have a sense of belonging among peers are some of the factors that lead to the increase in alcohol use by university students. The nature of social cultural norms is a predictor of behavior patterns. Childhood socialization is therefore, linked to psychological development of children. Decay of cultural and social norms loosens the outcomes of responsible parenting and has a high likelihood of leading to adverse behavioral tendencies among the youth.

Situational Factors and Alcohol Use

It can also be concluded that availability of financial resources, loss of family member or friends, occasions such as romantic dates, parties, life stresses and media advertisements and bill board advertisement are some of the major causes of alcohol use. The environment within which parenting is conducted influences the sensory mechanism of a child which leads to development of behaviors compatible with the surrounding. Just like the ICT buzzword 'Garbage in, Garbage Out', the environment is a major influence of behavior outcomes and manifestation.

Strategies for Combating/Mitigating Alcohol Use

The most used remedial measures in mitigating alcohol that can effectively reduce alcohol use include; restricting the use of alcohol in the institution and health promotion of alcohol users among other students which can be done through health education talks and peer talks to the students.

Recommendations

Psychological Determinants and Alcohol Use

It is recommended that alcohol education in schools is one way to address the gaps in what children are learning about alcohol and the different levels of education and support children receive at home. As part of this, schools could involve parents so that the same key messages about alcohol can be reinforced both at home and in school. To maximize impact, any alcohol education in schools would need to be run in parallel with campaigns targeting parents.

Further, continuous awareness programs need to be conducted to sensitize the students about the negative effects of alcohol use on academic performance. This is because; students who agreed with the statement that alcohol affected academic performance were less likely to be alcohol users.

Awareness programs can be executed through the forms of media used by youths, such as twitter, Facebook, Instagram among others. Counseling is encouraged for those students who feel that personality types affect alcohol drinking. Further, psycho-education can be used to enhance self-discovery by individuals as students whereby they will be encouragement on how to improve their weaknesses and enhance their strengths.

From the findings of the study, it is highly recommended that counseling and psycho-education should be encouraged for students with a background where parents abuse alcohol. In addition, family awareness about the negative impacts of alcohol use on the self-esteem and attitudes of the children should be encouraged. This is because of the tendency of students from such backgrounds to be stigmatized. The university environment contributes to alcohol use. It is therefore recommended that institutions of higher learning should lobby the sellers and distributors of alcoholic products not to subsidize the price of alcohol within premises close to institution.

The study also provides recommendations to the institutions of higher learning, to manage the alcohol use within the institution. This is because effective prevention and control of the negative health and social consequences of alcohol consumption is an important prerequisite for social development and the reduction of health inequalities.

Strategies for Combating/Mitigating Alcohol Use

It is recommended that students need to be educated on the dangers of alcohol use. This has to be done by all the stakeholders including psychologists and counselors. Alcohol use consequences spill over to the academic and possibly to their participation in sports. It is also detrimental to their academic performance. Students need to be sensitized on their lifestyles which make them vulnerable to alcohol use.

Midstream interventions should involve the development of programs across multiple universities in the country. For example, universities may review or develop policies and procedures around fostering an environment and providing services and information that enhance the health and wellbeing of students, noting that while

students are responsible for their own actions, the academic and social life of the university is a shared responsibility. In terms of this study, universities should work collectively to develop a set of principles to frame the shared responsibility of alcohol use among university students. By way of illustration, Universities in Kenya should endorse a set of related principles through which universities provide on-campus students alcohol education and support programs.

Other potential initiatives that involve both midstream and downstream interventions may include developing online education and support programs for young women at university, or shared education and support resources available across multiple universities. Similarly, shared education material about the role of alcohol price and susceptibility to retailer promotions distributed purposively at times of high alcohol use should be disallowed. Instead materials on the consequences of alcohol use and guides on responsible drinking targeted at the students should be distributed at such times. Parents should be more involved in guiding their university students by being more interactive.

Recommendation for Further Research

Recommendations for further research could be done on whether intercultural integration results to behavior change. A study to establish whether youthful behavior manifestation spill over to adult hood. Further investigation of the topic is also recommended using another university in the country which is not in the same region.

This study proposes that individual change will be realized by changing the social environment or social norms that surround people, rather than aiming at individuals through traditional methods such as lectures, speeches, counseling and therapy only. In addition, future research should take into account central variables such as gender, age, race, and residence, current year in university, cultural and

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regional affiliations from around the country, which could further extend and enhance

the present study.

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Appendix I: Questionnaire

I am a Master of Arts, Counseling Psychology student at Daystar University. I am conducting a study on factors leading to alcohol use by undergraduate students: A case study of University of Nairobi. I have specific questions to ask you related to alcohol use by university students. All information shared will be strictly confidential and will be used for academic purposes only. Your participation in the exercise is highly appreciated.

INSTRUCTIONS

To complete the questionnaire, read and respond to each statement according to the instructions given in each section.

SECTION A: GENERAL INFORMATION

A1.   Gender (Tick) Male [ ]   Female [ ]

A2.   Please indicate your age bracket

18 – 25 [ ]   26 - 35 [ ]

A.3.   Please tick appropriately the undergraduate program you are undertaking?

Civil	[ ]	Electrical & Electronics	[ ]
Mechanical	[ ]	Structural Engineering	[ ]
Environmental & Bio Systems	[ ]		

Other

(specify)..

A.4.　　　　Indicate your current year of study

1st	[ ]	2nd	[ ]	3rd	[ ]
4th	[ ]	5th	[ ]	6th	[ ]

SECTION B: ALCOHOL USE

B1. Indicate if you use any alcoholic beverages

Yes [ ]　　　No [ ]

B2. If you use any alcoholic beverages, please indicate your response with respect to use of the following alcoholic beverages (Tick Yes or No)

i)	Wines and Spirits	Yes	[ ] No [ ]
ii)	Bear (brews such as Tusker, Pilsner, Guinness e.t.c)	Yes	[ ] No [ ]
iii)	Traditional brews (e.g. Busaa, Muratina)	Yes	[ ] No [ ]
iv)	All of the above	Yes	[ ] No [ ]

B3.　　　　How frequent do you use the alcoholic beverage?

Every day	[ ]
At least once per week	[ ]
Once every month	[ ]
Sometimes in an year	[ ]
Never	[ ]

SECTION C: PSYCHOLOGICAL DETERMINANTS OF ALCOHOL USE

C1. To what extent do you agree with the following statements about alcohol use among students in the University? Indicate your response using a scale of 1 to 5, where 5 means strongly agree, 4 means moderately agree, 3 means Agree, 2 means Disagree and 1 means strongly disagree:

Psychological factors	1	2	3	4	5
There is nothing wrong with taking alcohol					
Alcohol negatively affects academic performance					
Alcohol use is influenced by what one expect will happen when consumed for example a feel of relaxation, courage and sociability					
There are certain personality types that are highly susceptible to alcohol use					
Students who use alcohol are more inclined to anti-social behavior					

SECTION D: SOCIO- CULTURAL FACTORS

D1. Does anyone of the following family relations use alcohol?

i) Father   Yes [ ]   No [ ]

ii) Mother   Yes [ ]   No [ ]

iii) Siblings   Yes [ ]   No [ ]

iv) Others   Yes [ ]   No [ ]

D2. Was alcohol brewed or available at home?   Yes [ ] No [ ]

D3. Is any member of your family struggling with alcohol abuse?   Yes [ ] No [ ]

D4. Peer influence is the cause of alcohol use among university students

Yes [ ] No [ ]

D5. Do you think students resort to alcohol use to deal with life stresses

Yes [ ] No [ ]

D6. Does the university environment favors the use of alcohol among students

Yes [ ] No [ ]

D7. Do cultural beliefs and practices advance usage of alcohol by young people?

Yes [ ] No [ ]

D8. Do you think religion restrains alcohol use   Yes [ ] No [ ]

SECTION E: SITUATIONAL FACTORS

E1. Which ONE of the following life events, in your opinion contributes MOST to use of alcohol among students?

a) Cultural ceremonies   [ ]
b) Birthday parties   [ ]
c) Weddings   [ ]
d) Sports events   [ ]
e) Club parties   [ ]
f) Death of a close Family/Friend [ ]
g) Others (specify)..

E2.   How does availability of financial resources lead to alcohol use among

students...

....

....

...

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SECTION F: INTERVENTIONS

F1. In your opinion, what would help you or students to avoid problems related to alcohol use?

....

...

F2. The following statements relate to students involvement in the university alcohol use awareness programs? Indicate your response using a scale of 1 to 5, where 5 means strongly agree, 4 means moderately agree, 3 means Agree, 2 means Disagree and 1 means strongly disagree.

Awareness program	1	2	3	4	5
Students are involved in alcohol awareness activities programs occasionally					
Training programs and seminars are usually held to sensitize students on the effects of alcohol					
Guidance and counseling is offered to alcohol users to facilitate behavioral change					
The university has implemented alcohol abuse prevention measures					
The university alcohol awareness programme is well publicized among students					
Awareness of alcohol use is done through passive receipt of health information in the study areas and use of Information, Education, Communication (I.E.C) material					
The regulations on alcohol use are clear, concise, and unambiguous					

F3. How do rules and regulations (policies) help in dealing with alcohol use in the university?

....

....

F4. Are there other organizations that participate in creating awareness about alcohol use in the university? If any which ones

....

....

F5. To what extent does the university use the following remedial measures to tackle the problems of alcohol abuse? Indicate your response using a scale of 1 to 5, where 5 means highly used and 1 means not at all.

Remedial measure	1	2	3	4	5
Guidance and Counseling					
Rehabilitation					
Treatment					
Health promotion					
Restricting use of alcohol use in the institution					

F6. What other information would you like to share about alcohol use among undergraduate students in the University?

....

....

THANK YOU.

Interview Guide

One on one Interview questions

1. In your opinion what is the percentage of undergraduate students who take alcohol?

2. Do you think the numbers are over whelming?

3. According to you, what are the factors that cause alcohol use among students in the University?

4. In your opinion, do you think the drinking trend is diminishing or getting popular?

5. As a counselor/staff/lecturer, are these issues of alcohol use brought to your attention? And if so how often?

6. What level of study in the undergraduate program do you encounter the highest number of incidences associated with the use of alcohol?

7. What intervention strategies are in place, in mitigating the problem of alcohol use? And what more in your opinion can be done?

Focus Group Discussion

1. Discuss the factors that you think are the major contributors of alcohol use among students in university.

2. What do you think of perception, personality traits, and cognition as factors leading to alcohol use?

3. What is your take on parenting, peer influence, the environment as well as life stresses in leading to alcohol use?

4. (a) Discuss some situations and life events that may lead to alcohol use by students in the campus.

    (b) Does the proximity to the city's CBD in anyway influence students to spend their money on entertainments and relaxation with use of alcohol?

    (c) Give your views on how to remedy the problem of alcohol use among university students.

Appendix II: University of Nairobi Campuses

1. Main campus

2. Kabete campus

3. Chiromo

4. KNH

5. Kikuyu

6. Lower Kabete

7. Parklands

8. Kenya Science

9. Kisumu

10. Mombasa
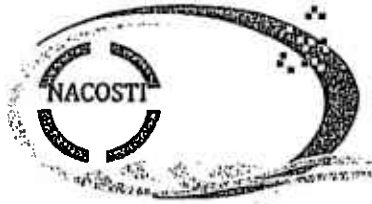
NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Ref: No.

Date:

26th April 2014

NACOSTI/P/14/9469/1581

Grace Jepngetich Kimeli
Daystar University
P.O.Box 44400-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on *"Factors leading to alcohol use by undergraduate students: A case study of University of Nairobi."* I am pleased to inform you that you have been authorized to undertake research in Nairobi County for a period ending 30th June, 2014.

You are advised to report to the Vice Chancellor, University of Nairobi, the County Commissioner and the County Director of Education, Nairobi County before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy** in pdf of the research report/thesis to our office.

SAID HUSSEIN
FOR: SECRETARY/CEO

Copy to:

The Vive Chancellor
University of Nairobi.

The County Commissioner
The County Director of Education
Nairobi County.

UNIVERSITY OF NAIROBI
OFFICE OF THE DEPUTY VICE - CHANCELLOR
(Research, Production & Extension)
Prof. Lucy W. Irungu B.Sc., M.Sc., Ph.D.

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May 5, 2014

Grace Kimeli
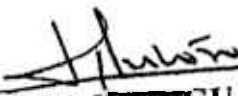Daystar University
P.O. Box 17-90145
Athi River Campus

Dear Kimeli,

PERMISSION TO CONDUCT RESEARCH AT THE UNIVERSITY OF NAIROBI

I refer to your request dated April 30, 2014 to conduct research at the University of Nairobi entitled: **"The Factors leading to use of Alcohol by University Undergraduate Students".**

I write to inform you that your request has approved.

You are however required to share the findings of your study with the University of Nairobi by depositing a copy of your research findings with the University of Nairobi Librarian on completion of your study.

LUCY W. IRUNGU
DEPUTY VICE-CHANCELLOR
(RESEARCH, PRODUCTION AND EXTENSION)
&
PROFESSOR OF ENTOMOLOGY

c.c.   Director,
        Library & Information Services

ISO 9001:2008 CERTIFIED