#### MIDLANDS STATE UNIVERSITY



#### **FACULTY OF SOCIAL SCIENCES**

#### DEPARTMENT OF PSYCHOLOGY

# ALCOHOL USE AND RISK SEXUAL BEHAVIOURS AMONG SOLDIERS AT FIELD AIRFORCE BASE: AN IMPLICATION FOR HIV/AIDS PREVENTION

# BY RUMBIDZAI VIDZA

#### R13295E

A DISSERTATION SUBMITTED TO THE FACULTY OF SOCIAL SCIENCES IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE BSc HONOURS DEGREE IN PSYCHOLOGY

GWERU, ZIMBABWE OCTOBER, 2015

**SUPERVISOR: MR MASEKO** 

#### APPROVAL FORM

# **FACULTY OF SOCIAL SCIENCES**

The undersigned certify that they have read and recommended to Midlands State University for acceptance of a dissertation entitled:

# Research topic: ALCOHOL USE AND RISK SEXUAL BEHAVIOURS AMONG SOLDIERS AT FIELD AIRFORCE BASE: IMPLICATION FOR HIV/AIDS PREVENTION

**Submitted by** RUMBIDZAI VIDZA, **Registration Number** R13295E, in partial fulfilment of the requirements of the Bachelor of Science Honours Degree in Psychology.

CHAIRPERSON:	• • • • • •
EXTERNAL EXAMINER:	••••
DATE:	

**SUPERVISOR: .....** 

**RELEASE FORM** 

MIDLANDS STATE UNIVERSITY

NAME OF AUTHOR: RUMBIDZAI VIDZA

TITLE OF DISSERTATION: ALCOHOL USE AND RISK SEXUAL BEHAVIOURS

AMONG SOLDIERS AT FIELD AIRFORCE BASE: IMPLICATION FOR HIV/AIDS

**PREVENTION** 

**DEGREE IN WHICH DISSERTATION WAS PRESENTED:** BSC HONOURS IN

**PSYCHOLOGY** 

YEAR GRANTED: 2015

Permission is hereby granted to Midlands State University Library to produce copies of this

dissertation to lend or sell copies for scholarly purposes only.

The author reserves other publication rights and neither the dissertation nor may extensive

extracts from it be printed or otherwise produced without the author's written permission.

Signed: .....

Address:

FAFB, P Bag 791

Kadoma

Phone

0777743930

**Email Address:** 

ruruvidza@gmail.com

Date:

October 2015

iii

# **DEDICATION**

I dedicate this to the most special man in my life Tauya, and my adorable son Abdiel, who were always there with unwavering support that saw me through this project.

#### **ACKNOWLEDGEMENTS**

I wish to acknowledge my supervisor Mr M.M. Maseko who was motivational and inspirational through this research. I wish to thank his valuable guidance that saw me to the end of this paper.

I would also like to thank all the participants that took part in this study. Most of all, I would like to thank the Most High Lord God Almighty for taking me this far.

#### **ABSTRACT**

Alcohol use and risk sexual behaviour is a global burden that is taking on the health systems and economic development world over in terms of the consequences and risks that it poses. The purpose of this study was to reconnoitre the predicament of alcohol use by soldiers so as to acquire knowledge about alcohol use and risk sexual behaviours that may consequently lead to ill health and other negative effects for the problem to be reduced or curbed or better yet prevented. The versatile environment of the military leaves soldiers vulnerable from time to time that they resort to alcohol use and subsequently sexual indulgence as a coping strategy. Alcohol use and risk sexual indulgence may also pose a threat of jeopardising HIV/AIDS prevention and promotion of sexual health. A quantitative approach which employed the use of descriptive survey to research was adopted in this paper to describe current situations and conditions. Data collection took the form of questionnaires administered within the various messes and sections. The sample was 196 participants derived across the ranks. The data analysis employed descriptive statistics that saw demographics presented in frequency whilst association of variables employed chi-square tests using the Statistical package in Social Sciences version 20. The research found out that at more than half the sample were alcohol users and had engaged in risk sexual behaviours at some point in their lives. The research generated evidence that there was a significant association between alcohol use and risk sexual behaviours and therefore recommendations to mitigate the peril were put.

# TABLE OF CONTENTS

	Cover Page	
	Approval Form	ii
	Release Form	iii
	Dedication	iv
	Acknowledgements	v
	Abstract	vi
	Table of contents.	vii
	List of appendices	X
	List of tables	xi
	List of figures	xii
	List of acronyms	xiii
	DTED ANE. INTRADICTION AND DACKERALIND TO THE STUDY	1
СНА	PTER ONE: INTRODUCTION AND BACKGROUND TO THE STUDY	1
<b>CHA</b> .	PTER ONE: INTRODUCTION AND BACKGROUND TO THE STUDY  Introduction	<b>1</b> 1
1.1	Introduction	1
1.1 1.2	Introduction  Background to the study  Statement of the problem	1
1.1 1.2 1.3	Introduction  Background to the study  Statement of the problem.	1 1 3
1.1 1.2 1.3 1.4	Introduction  Background to the study  Statement of the problem  Significance of the study	1 1 3 4
1.1 1.2 1.3 1.4 1.5	Introduction  Background to the study  Statement of the problem  Significance of the study  Purpose of the study	1 1 3 4 4
1.1 1.2 1.3 1.4 1.5 1.6	Introduction  Background to the study  Statement of the problem  Significance of the study  Purpose of the study  Research objectives	1 1 3 4 4 4
1.1 1.2 1.3 1.4 1.5 1.6 1.7	Introduction  Background to the study  Statement of the problem  Significance of the study  Purpose of the study  Research objectives  Research questions	1 1 3 4 4 4 5
1.1 1.2 1.3 1.4 1.5 1.6 1.7	Introduction  Background to the study  Statement of the problem  Significance of the study  Purpose of the study  Research objectives  Research questions  Delimitation of the Study	1 1 3 4 4 4 5 5
1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8	Introduction  Background to the study  Statement of the problem  Significance of the study  Purpose of the study  Research objectives  Research questions  Delimitation of the Study  Limitations	1 1 3 4 4 4 5 5
1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9	Introduction	1 1 3 4 4 4 5 5 6 6

2	Literature review	8
2.1	Introduction	8
2.2	Major Concepts	8
2.3	Thematic Review of Literature	10
2.4	Theoretical Framework	20
2.5	Chapter Summary	22
СНА	PTER THREE: RESEARCH METHODOLOGY	23
3	Research Methodology	23
3.1	Introduction	23
3.2	Research approach	23
3.3	Research design.	23
3.4	Target Population	24
3.5	Population Sample	24
3.6	Sampling procedure	24
3.7	Instrument	25
3.8	Data collection Procedures.	25
3.9	Data analysis	26
3.10	Ethical considerations	26
3.11	Chapter summary	27
CHA	PTER FOUR: DATA PRESENTATION AND ANALYSIS	28
4	Data presentation and analysis.	28
4.1	Introduction	28
4.2	Demographic data information	28
4.3	Research question one	32
4.4	Research question two	35
4.5	Research questions three	37
4.6	Research question four	42
4.7	Chapter summary	44
СНА	PTER FIVE: DISCUSSION, CONCLUSION AND RECOMMENDATIONS	45

5	Discussion, conclusion and recommendations	45
5.1	Introduction	45
5.2	Discussion research question one	45
5.3	Discussion research question two	45
5.4	Discussion research question three	46
5.5	Discussion research question four	47
5.6	Conclusion	47
5.7	Recommendations	48
5.8	Chapter summary	49
	References	50

# LIST OF APPENDICES

Appendix 1:	Questionnaire	110
Appendix 2:	Permission to conduct research:	124
Appendix 3:	Audit Sheet	125

# LIST OF TABLES

Table 1:	Age	29
Table 2:	Marital status.	30
Table 3:	Lifetime alcohol use	32
Table 4:	Units of alcohol at a time	34
Table 5:	Suffered STI once or more	36
Table 6:	Case processing summary	37
Table 7:	Frequencies lifetime alcohol use and sex	37
Table 8:	Chi-square tests	38
Table 9:	Symmetric measures	38
Table 10:	Case processing summary	39
Table 11:	Frequencies lifetime alcohol use and marital status	39
Table 12:	Chi-square tests.	40
Table 13:	Symmetric measure	40
Table 14:	Case processing summary	41
Table 15:	Frequencies place of residence	41
Table 16:	Chi-square tests	41
Table 17:	Symmetric measures	42
Table 18:	Case processing summary	42
Table 19:	Frequencies of alcohol abuse and sex outside intimate relationship	43
Table 20:	Chi-square tests	43
Table 21:	Symmetric measures	44

# LIST OF FIGURES

Figure 1:	Gender Distribution	28
Figure2:	Years of service.	30
Figure3:	Place of Residence	31
Figure4:	Education Level of participants	32
Figure5:	Past year alcohol use	33
Figure6:	Past month alcohol use frequency	34
Figure7:	Sex outside initimate relationship.	35
Figure8:	Use of protection	36

#### **ACRONYMS**

STI Sexually Transmitted Diseases (STIs)

HIV Human Immunodeficiency Virus

WHO World Health Organisation

AUDIT Alcohol Use Disorders Identification Test

AIDS Acquired Immuno Deficiency Syndrome

DSM Diagnostic Statistic Manual

NAC National AIDS Council

FAFB Field Air Force Base

AFZ Airforce of Zimbabwe

APC Alcohol Per Capita Consumption

DALY Disability Adjusted Life Years.

#### CHAPTER 1

#### INTRODUCTION

#### 1.1 INTRODUCTION

This chapter provides general information about the use of alcohol and sexual behaviour that is risky among the general population and the military at large and the problem at hand. It also seeks to indicate the rationale of the study and highlight the overview of the research as a whole.

#### 1.2 BACKGROUND TO THE STUDY

Existing literature suggest that alcohol related burdens and its excessive consumption constitute serious health hazards for human health, existence and wellbeing. It is also reported that the universal burden of diseases pertaining to both alcohol and unsafe sex is sizeable. According to a WHO (2005) report, alcohol and risky sex contributions to the universal problem of diseases are furthermore intensified through the connections that seem prevalent between alcohol, risky sexual behaviours and the spread of sexually transmitted diseases (STIs) including HIV infection. Alcohol use has been shown to increase high risk sexual behaviours and that risk sexual behaviour is responsible for a huge number of chances of acquiring HIV infection (Cooper, 2002). Also, its excessive consumption poses ample peril and cause harm to the person and the community as well.

In the military, alcohol has been traditionally used to cope with intense stress of the combat. Alcohol is also claimed to assist in building teamwork and cohesion during training, instilling confidence during battle and help distraught soldiers relax and rest immediately after taking on battles. According to Jones (2000), during World War 1 alcohol was used as treatment of shell shock. Regimental medical officers are often said to have preferred to treat soldiers with a tot of whisky to help put them to sleep rather than having them admitted into hospitals and it is only after this intervention failed that they would resort to a casualty clearing station.

Nonetheless, alcohol is also said to be a factor contributing towards problematic sexual outcomes for those that drink, for instance undesirable pregnancy, sexual harassment, assaults, STIs, and general sexual dysfunction. The physical or biological effects of alcohol

are well known by the majority, even to non-drinkers. Predominantly, alcohol is a Central Nervous System depressant that at first in small quantities produces euphoria, relaxation and extraversion in the drinking person. As they continue drinking, the individual will conversely progress through a course of increasing lethargy, confusion, stupor, coma, and even death, depending on the consumed volume. Due to several physiological effects of ethanol existent, an individual may experience a slowing of cognitive processes, blurred vision, and even anterograde amnesia, which is widely known as "blacking out".

NAC (2010) in Zimbabwe reported that the Military were among its key priorities and that they were the most at risk populations. Statistics for HIV infection rates in militaries are not easy to determine due to concerns about national security. As reported by UNAIDS (1998), when in peacetime, prevalence rates for STIs among soldiers are in general two to five times higher when compared to civilian populations; and in conflict periods, they are said to rise to even more than 50 times higher. Comparative researches regarding sexual behaviour in France, the UK and the USA indicated that soldiers are more prone to HIV infection than groups of their civilian counterparts. Armies and other defence arms in other parts of the world are said to reflect the same phenomenon. These statistics where somewhat established on an international survey in the early 1990s, which found startling HIV prevalence rates in some African militaries. Researchers though, suggest that they apparently do not mirror the existing authenticity.

This predicament is faced in developing countries as well as developed countries. According to the American Psychiatric Association's (DSM-IV) (2000), 90% of adults have at least one negative experience in their lives (60% of males and 30% of female) have had at least one negative event happen as a result of alcohol intake. Suffice to say that, repeated alcohol use essentially causes physical and mental harm with consequences of detrimental drinking marked by illness and distress to the partakers and even the people in their circles for instance family and friends. The social-economic cost involved in alcohol use is massive. Alcoholic intoxication resulting in violence is an old issue dating back to the dynastic periods of Egypt when drunken sprees lead to violence. Worst case scenarios, alcohol can lead to hospitalization, incapacity, and premature death, with consequent economic loss to the community and to the nation (Kawada, Inagaki, &Kuratomi, 2010).

Adverse effects of alcohol use are related to pattern and level of drinking. Drinking behaviour is intricate, and there is a prerequisite to extend the range of subjects studied, particularly

extending analysis to other facets like the economic, political and ecological factors that have not received enough study compared to the psychosocial issues yet they are also affected. Drinking includes, sensible drinking, hazardous drinking, harmful drinking, and or dependent alcohol drinking thus probably most determined by the social and cultural dynamics that surround the alcohol use. Because of those social and cultural dynamics, there is a need to look for substitute ways to tackle the delinquent in diverse sociocultural context and in this case work settings for interventions to be effective. For this to be achieved one needs to untangle the social underlying forces of alcohol use and related sexual conduct within a precise cultural and work environment setting. Thus it becomes imperative for knowledge to be acquired in regard to alcohol use and risk sexual behaviours that may consequently lead to ill health and other negative effects for the problem to be reduced or curbed or better yet prevented.

The prevalence of alcohol use in the FAFB is high such that the community of FAFB is susceptible to the before mentioned predicaments brought about by alcohol use and risk sexual behaviours. It is therefore mortifying for us modern-day researchers to revisit the works of all other researchers that have pioneered research in quest of addressing problems associated with alcohol use for instance Straus and Bacon (1953) whose research 'Drinking in College' marked the exploration of alcohol use. It is equally mortifying to realize that just as it did 50 years back drinking poses as serious a delinquent, conceivably even more fatal than then. But it is also vital to note the progress that has been made in the research methodologies available today and as such it is against this background that I seek to contribute to research and exchange knowledge regarding the use of alcohol and sexual risk behaviours associated amongst military serving members at FAFB.

#### 1.3 STATEMENT OF THE PROBLEM

Alcohol use as well as sexual risk behaviours have been noted to be high in prevalence amongst the military members at FAFB. The environment of military work leaves the members vulnerable more often than not and from time to time it can change from being perilous to safe, exciting to boring, challenging to tedious, rewarding to frustrating, working around the clock to working on call, unpredictable to routine. It is under these circumstances that members may face a lot of strain and experience job related stress thus end up in alcohol drinking and subsequently risk sexual behaviours using that as a coping strategy as many

believe that drinking and sex takes the mind off troubling thoughts. Also, it has been noted that year in and year out quite a number of members drown in debt or succumb to selling of personal property or gadgets like phones in order to make up for the expenditure made on the "holy waters".. Redundancy at the employment arena in some sections and straining of some employees in a bid to cover up for others is also experienced thereby impacting negatively on productivity and security as well.

Alcohol use and risky sexual behaviours also pose a great threat to jeopardising the prevention of HIV\AIDS and may result in soldiers being prone to reproductive health problems as a result of STIs. Also medical bills as a result of illness brought about by the effects of alcohol and sexual risk behaviours have to be footed at the end of the day.

#### 1.4 SIGNIFICANCE OF THE STUDY

Alcohol consumption and sexual risk behaviours among soldiers pose a huge risk to the wellbeing of the soldiers themselves and their dependants as well in all aspects of life. This study's rationale therefore is to ascertain the relationship between alcohol use and sexual risk behaviours so as to come up with interventions that curb the negativities that result from alcohol use at FAFB. The research also seeks to raise awareness to the FAFB serving members and the Airforce of Zimbabwe (AFZ) at large on the prevalence of alcohol use and sexual risk behaviours such that the AFZ social services department formulates and put in place policies to intervene especially with preventive measures and raise awareness on the risk posed by alcohol to personnel well-being. The information generated from the study would also add to the already existing body of knowledge.

#### 1.5 PURPOSE OF THE STUDY

The study's purpose is to add to the budding, but still rather patchy, frame of knowledge on alcohol use and sexual risk behaviours especially among soldiers. It therefore becomes imperative for knowledge to be acquired in regard to alcohol use and risk sexual behaviours that may consequently lead to ill health and other negative effects for the problem to be reduced or curbed or better yet prevented

#### 1.6 OBJECTIVES

- To determine the prevalence of alcohol use amongst serving members at FAFB.
- To determine the sexual risk behaviours that are associated with alcohol drinking.
- To identify the profile of members that take on alcohol use.
- To raise awareness of the public health problems caused by the harmful use of alcohol
  and help in formulating ways to reduce and prevent, where possible, the harmful use
  of alcohol and sexual risk behaviours.

#### 1.7 RESEARCH QUESTIONS

- 1. What are the patterns and frequencies of hazardous and harmful alcohol use amongst serving members?
- 2. What are the emergent patterns and frequencies of risk sexual behaviour amongst serving members?
- 3. Is there association between sex, marital status and living arrangements and alcohol use among serving members?
- 4. What is the association between substance use and risk sexual behaviour

#### 1.8 DELIMITATIONS

The study was conducted at FAFB a cantonment area surrounded by farms in Chegutu district, Mashonaland West province in Zimbabwe. Places of major concern within the base were the Officer's Mess, the Warrant Officer's and Sergeants' Mess, the Airmen's Mess and the Sports Club. Of major focus, were, the patterns and frequencies of hazardous or harmful alcohol use amongst serving members; as well as the emergent patterns and frequencies of risk sexual behaviour amongst serving members? In this case in order to ensure manageability, risk sexual behaviours were taken to be sexual activities done without the use of condoms or their correct use and with participants whose jurisdiction and decision making has been influenced by alcohol.

#### 1.9 LIMITATIONS

The study was carried out in an area where either Shona or Ndebele or English are spoken with some participants unable to comprehend one language or the other. Language differences called for the use of an interpreter thus the information obtained in the process may have been slightly altered for example in the case of Ndebele speakers who could not speak English or Shona either since the researcher only spoke and understood English and Shona. Also, differences in ranks between the researcher and the subjects had the effects of causing the subjects to be unable to talk and report freely as the majority of the participants were going to be subordinates hence issues pertaining to alcohol and sexual risk behaviours may have seemed a bit too personal and sensitive. More still the study might have been possibly affected by subjectivity and bias of the research instruments used and this limiting factor was mitigated by guaranteeing validity and reliability of the instruments and minimizing any possibility of subjectivity.

#### 1.10 ASSUMPTIONS

This study will assume that the prevalence of alcohol use among serving members at FAFB determines to a greater extent sexual risk behaviours that pose a threat to the health and well-being of the members. More still it will be assumed that data on alcohol use that currently exist is limited pertaining the military that is, and largely incomparable from region to region and from one data source to the other.

#### 1.11 DEFINITION OF TERMS

**Alcohol**: alcohol is defined as a psychoactive substance whose properties produce dependence, (WHO. 2014)

**Alcohol per capita consumption (APC)**: is the per capita amount of alcohol imbibed in litres of pure alcohol in a given population (WHO, 2014)

**Dependent use**: is a cluster of physiological, behavioural, and cognitive phenomenon in which the use of alcohol takes on a much higher precedence for the person than other behaviours. These singularities include the increased craving to use alcohol with weakened control, persistent use in spite of harmful consequences, a higher precedence rendered to

alcohol use than any other responsibilities, increased alcohol tolerance, and a physical withdrawal reaction when alcohol use is discontinued (Barbor et al. 2001)

**Harmful drinking**: Edwards et al (1981) defines harmful drinking as the use of more than four standard drinks five times a week for men and three standard drinks four times a week for women which results in adverse mental or physical effects.

**Hazardous use**: Use of alcohol that will perhaps lead to harmful consequences to the partaker, either to be unable to function or to cause harm; similar to the idea of risky behaviour (Saunders et al. 1993).

**Mess**: is a place in the cantonment area where soldiers get entertainment, dine and wine, with alcohol bars also as part of the mess.

**Serving members**: these are the members attested, trained and currently serving in the Zimbabwe Defence Forces.

**Sexual risky behaviours**: Any sexual behaviour with the probability of negative consequence associated with sexual contact like sexually transmitted disease like HIV, unplanned pregnancy and abortion which can lead to death and disability (Dadi and Teklu, 2014).

#### 1.12 CHAPTER SUMMARY

This chapter defined the introduction, background to the study and statement of the problem by presenting the collective aspects concerned with alcohol use and sexual risk behaviours. The chapter proceeded to outline the research questions which directed the researcher to important and dire aspects to attend to during the study process. In the same manner the chapter explained the significance of the study and outlined the assumptions that guided the research. Definition of critical terms concluded this chapter while it leads to chapter two which centres on the review of literature related to alcohol use and sexual risk behaviours.

#### **CHAPTER 2: LITERATURE REVIEW**

#### 2.1 INTRODUCTION

In this chapter, literature from various scholars related to this study will be presented and reviewed. According to Leedy and Ormrod, (2009), when one knows what others have done and how they did it, they can investigate their chosen topic with a much deeper insight and better knowledge compared to researching without prior reading. Basically, literature review should help researchers familiarise themselves with prior work in their selected topic area.

In review of the related literature, this chapter explored the major concepts of the topic, the prevalence of alcohol use globally, at a national level and in the military per se, also its association to sexual risk behaviours and the health effects of alcohol were also explored. Lastly the theories that may have been underlying the use of alcohol and risk sexual behaviours were identified and examined.

#### 2.2 MAJOR CONCEPTS

#### 2.2.1Alcohol Use and Misuse

Alcohol is a psychoactive drug that is legally and socially acceptable in most countries universally (Keller &Vaillant, 2011). According to a WHO(2011) global status report made on alcohol and health, drinking can be use or abuse depending on the pattern and of drinking and the total volume of alcohol imbibed. The report states that there arewide-ranging alcohol consumption patterns specifically: occasional hazardous drinking to daily heavy drinking. Hazardous pattern of drinking is characterised by the presence of heavy drinking occasions, spelt out as imbibing of 60 or more grams of pure alcohol. Harmful Alcohol consumption is responsible for noteworthy public health and safety hitches like neuropsychiatric disorders, cardiovascular diseases, cirrhosis of the liver, and various cancers. And of this concern in this research, perilous behaviours leading to the transmission or progression of infectious diseases like HIV/AIDS. Also unintended and intended injuries, including those due to road traffic accidents, violence, and suicides.

In explaining Alcohol use and alcohol abuse Myadze (2014) had quite clear explanations put out. She reported that because alcoholism manifests a diversity of behavioural tendencies,

there is need to identify distinct categories of relevant drinking patterns. She cited in Clinard and Meir (2004) the four categories of drinkers, namely: the social or controlled drinkers, the heavy drinkers, the alcoholics and the chronic alcoholics. A social drinker's reasons for drinking revolve around the search for sociability, conviviality, and conventionality. The amount of alcohol consumed is so small that it does not induce a state of intoxication- in this case this is the alcohol use being that in this research is regarded normal. Apart from indulging in more frequent use of alcohol than the social drinkers, the heavy drinkers take three or more bottles of liquor, which leads to occasional intoxication. The third category consists of those who consume alcoholic beverages in excess of ordinary dietary and social requirements. Excessive reliance on drinking adversely affects the drinker's health, interpersonal relations as well as task performance. Finally, chronic alcoholics are distinguished by what Clinard and Meir (2004) refer to as compulsive drinking, and this involves solitary drinking, morning drinking, leading to serious general physical deterioration. Persons in the last two categories are those likely to display violence while intoxicated; experience difficulty in attending and performing at work, school etc.; encounter legal problems due to arrest for intoxicated behaviour, traffic accidents while intoxicated, and have arguments or problems with family members or friends because of unnecessary alcohol use. They are also likely to be the ones to engage in risky sexual behaviours.

#### 2.2.2 Sexual Risky Behaviour

Connor, Psutka, Cousins, Gray, and Kypri (2013) defined "risky sex" as last sexual intercourse encounter where one was not in a stable relationship with their sexual partner, described as "recently or just met," or "known for a while but no secure relationship" and protection was not used. Dadi and Teklu, (2014) also described sexual risky behaviour as any sexual behaviour with the probability of negative consequence linked with sexual contact like sexually transmitted disease like HIV, unplanned pregnancy and abortion which can lead to death and disability. These behaviours have also been well-thought-out in two broad categories by Cooper, (2002): indiscriminate behaviours, including having numerous partners; having perilous, chance or mysterious partners; and failure to converse on risk topics preceding intercourse and secondly failure protect oneself, like use of condoms. Cooper (2002) also explains the link between sexual risk behaviour and alcohol which shall be reviewed later in this paper.

#### 2.3 THEMATIC REVIEW OF LITERATURE

#### 2.3.1 Prevalence of Alcohol Consumption in the General Population Globally.

WHO (2014) in its global status report on alcohol and health states that the use of alcohol has been identified as a constituent cause 200 diseases plus, injuries and other health conditions with ICD-10 codes. From the latest WHO updates, it is reported that the world over, individuals over the age of 15 years drink averagely 6.2 litres of pure alcohol yearly, with the chief consumptions being recorded in the developed world, that is, in the WHO European Region (EUR) and the WHO Region of the Americas (AMR). Middle levels of alcohol drinking are found in the WHO Western Pacific Region (WPR) and the WHO African Region (AFR), while alcohol is not so popular in the WHO South-East Asia Region (SEAR) and particularly in the WHO Eastern Mediterranean Region (EMR) (WHO, 2014). The total APC for the African region in 2010 was 6% according to data availed by (WHO, 2010).

Globally, alcohol consumption causes approximately 3.3 million deaths a year as stipulated in the latest global status report on alcohol and health (WHO, 2014). According to the WHO (2014), the 3.3 million deaths make up 5.9% which is even superior to the percentage of deaths from the HIV/AIDS pandemic (2.8%), violence (0.9%) or tuberculosis (1.7%). Also, 5.1% of the global burden of disease and injury can be attributed to alcohol, as measured in disability adjusted life years (DALYs).

Alcohol does carry a lot of cultural significance for it is culture that defines who drinks alcohol and when they drink it. Alcohol is used on social gatherings and also in some religious ceremonies universally for example weddings, funerals, memorials and rain making ceremonies among many other practices and occasions. Alcohol use is frowned upon in some countries whilst banned altogether in others. Reasons for drinking vary from a need for relaxation, for pleasure, to celebrate, for rituals, to drowning of sorrows, to habit, followed by compulsion in some cases (Sutton, 2011).

Culture and social customs often encourage alcohol use in a diversity of social purposes (Kinney, 2006). Alcohol has been historically used for setting disputes, evoking courage in a

battle, contract resolution, festivities or celebrations, and as an aphrodisiac (Pacific Academy of the Healing Arts, 2010). In traditional African societies alcohol consumption outside of ceremonially sanctioned occasions was condemned and regarded as rather foreign to local cultures. But, alcohol consumption has lately become very much related to the notion of "Westernization" and "modernity". In fact, it is now a mark of social intricacy and a symbol of prestige. Today regular and recreational alcohol consumption has gradually spread to most of the communities in spite of the past social stigma and serious cultural reservations. Breweries and distilleries have been set up now in most developing countries, and the tax on alcohol has become a major source of revenue for most of these countries. For centuries alcoholic drinks, namely local brews, have been consumed in most African communities for various social and cultural functions such as offering thanksgiving after harvest, marriage, birth, initiations, death and for intercession with ancestral spirits (Kilonzo&Pitkanen, 1992).

According to Marmot et al (2003), drinking patterns are important predictors of risk, a person who consumes just two drinks every evening and one drink only on Friday and Saturday nights, and another consuming seven drinks on each of these evenings, the variance in their patterns means that they will differ in their risk for social, casualty and long term health worries. Prevalence of alcohol dependence in any society is directly related to the per capita consumption of alcohol. Total per capita consumption appears to be related to the price and availability of alcohol. If alcohol is cheap and widely available, per capita consumption is high and alcohol related problems are common (Murray &Bernadt, 1980). Everything considered, males in most cases are more predictable to take more liquor compared with females throughout the world, and cause more problems by doing so (WHO, 2005).

Besides culture, there are other aspects that subscribe to the prevalence and patterns of alcohol use that include age, gender, socio-economic status, economic development and familial trends (WHO, 2014).

#### 2.3.2 Alcohol Use in Africa

As purported by Martinez (2013) alcohol is the most widely distributed and commonly used substance in Africa that even the most rural areas in Africa have reliable production and

distribution systems. Differences in ethnic diversity, religion, level of welfare and industrialization, convenience or readiness of alcohol, tolerability of alcohol in society, and political and economic stability causes alcohol use to vary in Africa (Odejide, 2006). The exact amount of homebrew consumed is difficult to estimate, and even attempts at documenting "unrecorded" consumption are of limited use in determining homebrew consumption per se because it includes measures of untaxed or unregistered alcohol which can include commercially produced alcohol smuggled into the region.

Martinez (2013) goes on to stipulate that although alcohol-related problems across African countries are quite diverse, some clear resemblances are widespread. Alcohol has caused premeditated and involuntary harms and social and physical destruction to the drinker and the surrounding people. As is alluded to by Patra, Taylor and Irving (2010) this includes reduced job performance, family deprivation, relational violence, mental health problems, foetal alcohol syndrome, alcohol use disorders and alcohol-related traffic fatalities. Furthermore, in Africa still, alcohol is an important contributing factor for sexual behaviour that is risky, sexually transmitted diseases, and HIV infection and disease progression.

In Africa, there are numerous ethnic groups, defined by language, culture and history. Identifying with a particular ethnic group or tribal affiliation can influence if, how and why alcohol is consumed. The meanings, expectations, production, distribution, traditions and uses of alcohol can vary greatly based on culture. Culture determines who, when, where and for what purpose alcohol is consumed. Martinez (2013) cites in Karp (1980) and reports that among the Iteso in Uganda and Kenya, beer was an integral part of social and spiritual rituals. The tribes of southern Ghana viewed alcohol as containing powerful supernatural power, and that without alcohol, one could not communicate with the ancestors and the gods but with some brew. While the important contemporary social changes such as urbanization, the spread of technology, and changing gender roles may render the specific practices less relevant, the connection to a belief system with its meanings and understandings towards alcohol will likely still influence alcohol use (Room et al, 2002 in Martinez 2013).

#### 2.3.3 Alcohol Use in Zimbabwe.

In Zimbabwe, alcohol is taken for recreational use. In settings where there are few recreational facilities, drinking may be the main source of recreation accompanied by increased harmful patterns of alcohol use. According to Chakanyuka (2014), in a Sunday News report which quoted latest data obtained from the United Nations outlined that Zimbabwe and its southern neighbour have the highest burdens of disease attributable to alcohol universally after Russia and Ukraine. Rating from one to five, Zimbabwe scored four points, just the same as South Africa, while Russia and Ukraine scored five points to rank first. In the same newspaper article it is reported that according to Delta Beverages 2012 financial results, Zimbabwe consumed 198.1 million hectolitres of lager and 335.4 million hectolitres of opaque beer which is just too much hence implying the alcohol related risks we are prone to as a nation at large. Kaseke (2013) in a The Herald feature, reported that the nation's main liquor company had recorded a whopping 800% increase in sales in the year 2012 and also the nation also experienced the worst fatalities on the road through accidents largely attributed to alcohol. It is however comforting to note that policy makers are striving towards raising awareness to prevent and avoid alcohol related predicaments as evidenced by the Zimbabwe National Alcohol that was approved in (2011). The Zimbabwe National Alcohol Policy is a comprehensive national strategy to address and reduce the harmful use of alcohol. The Policy reaches into the health sector and beyond to engage development, transportation, justice, social welfare, agriculture, trade and commerce, education as well as employment and the community in partnerships so that the entire population can be free from alcohol related harm.

WHO (2004) reports that in Zimbabwe, at least 21.5% of the Zimbabwean male population of the age 15+ are heavy episodic drinkers amongst the 42.8 that are said to drink and 6.3% of the female population also subscribe to heavy episodic drinking among the 22.2% that are reported to drink. WHO (2004) also recorded that of the 3.3% alcohol use disorders recorded in Africa in the year 2010, 9.0% and 1.6% were Zimbabwean males and females respectively. Zimbabwe even though, the above reported statistics encompass ages from 15 onwards has a legal policy in place that forbids the sale of alcohol to people below the age of 18 years.

As reported by Nkoma and Bhumure (2014) cited in Johnston et al. (2004), there is an indication that most people initiate drinking during adolescence and upturn the amounts they

consume in their young adulthood when they become college students and decrease when they marry, with males drinking more than females at this transitional period. In relation to alcohol use and gender, Nkoma and Bhumure (2014) found out in their study that males had a higher prevalence of alcohol use in the previous month and a higher rate of binge drinking and daily usage than their female counterparts particularly in college which goes also for the vast of the population. In a study by Zindi (n.d) it is evident that Zimbabweans begin to indulge in alcohol use at a very much younger age as he reports that in another study on the use of drugs involving 2 700 Zimbabwean secondary school students, Acuda, Eide and Gudyanga (1990) found that 38% of the students had tried alcohol. This implies that Zimbabwean people that use alcohol may have been mostly initiated during adolescence.

#### 2.3.4 Alcohol Use in the Military

The military denotes to a combat force of men and women who are voluntarily trained and qualified as officers and soldiers to uphold the national security and perform the institutional duty of defending their territorial integrity from any quarters be they external or internal, (Zambia Defence Forces 2006). In Zimbabwe, research on alcohol consumption has been made but not necessarily or specifically on the prevalence or patterns of alcohol drink in the military. However a study done in the UK armed forces discovered that 67% males and 49% females had an AUDIT (Alcohol Use Disorder Identification Test) score of 8+ which is hazardous compared to 38% males and 16% females in the general population (Fear et al, 2007). In the military liquor is often claimed to have a positive effect: assisting in team cohesion during training, building confidence during battle and in peace time, and helping distraught soldiers to slumber soon after a combat. It is reported that the UK Armed forces among many other nations have used alcohol as means of mediating stress both in theatre and in the aftermath battle. Back in time to the famous battle of Waterloo, many British Regiments are said to have given spirits before and during the conflict as part of their rations. Seamen in the Royal Navy did receive a ration of Brandy daily. A study of 1.424 Australian veterans of the gulf war of 1991 showed that liquor abuse was the most common psychological disorder ten years after the event (Jones and Fear, 2011).

In a review of military research into alcohol consumption by Verral (n.d), it was highlighted that service men generally consume alcohol more than civilians. Within the military itself, in

the United States of America it was found that harmful use of alcohol use was more in the Army than the Airforce and Navy. The same can be said for most militaries in the world. Also within the military according to Verral, the most obvious 'at risk' sub-group within the military is the young, single or unmarried, male, lower educational achievement, white (in the Western context that is, a smoker, and from among the non-commissioned ranks.

According to a study carried out by Mulenga (n.d), results in his study indicated a mathematically significant connection between alcohol consumption and engagement in casual sex. The study showed that 39.1% of respondents had taken alcohol the last time they had a sexual association with a non-regular partner, compared to 13.5% who did not. Similar results were witnessed in a study done in Burkina Faso, Cameroon and Namibia on alcohol and drug use among military personnel and mobile populations; which revealed that alcohol use, was a big delinquent particularly among male soldiers, and that this happened more in deployment periods (Mulenga, n.d). Results from this study showed that soldiers were most likely to drink alcohol with sex with casual partners in deployment situations, as compared with on post situations (Radhika, 2006). In a survey by UNAIDS (2005), results reported that in an environment of limited or no action facilities among peace keepers, practices such as alcohol and substance use become alternatives to recreation and passing time. UNAIDS (2005) has also reported an increase in the STI's recorded at the military clinics in West Africa particularly Nigeria and Burkina Faso each time soldiers returned from their tours of duty in various operational areas, a proxy confirmation that condoms were not used at all or were not used consistently among soldiers. UNAIDS (2005), reports 2 to 5 times higher STI rates in the military than in the civilian population and up to 10 times higher in wartime.

As a people, military personnel are vulnerable to this depravity due to work conditions, mobility, relatively young age, influence of alcohol and some ethos of military tradition (Mulengan.d).

#### 2.3.4 Alcohol and Sexual Risk Behaviours

According to a WHO (2005) women and teenagers have generally increased their indulgence in alcohol drinking. However, men, are more at liberty of alcohol use or even of engaging in

promiscuous behaviour. Teenage pregnancies are said to be on the rise as evidence of unprotected sex. Sexual adventures outside marriage are apparently fashionable and on the rise in the face of a long-established STI/HIV status, as described in Belarus, Zambia and India. And it's also pathetic that denial of the problem and social stigma may thwart people with STIs from seeking medical help. Despite the knowledge possessed by individuals about safe sex, the use of condom is limited especially after consumption of alcohol. Alcohol use is often linked to certain kinds of sexual activity for instance the wild and spontaneous kinds like in anal sex, group sex, unprotected casual sex, and others when participants in such activities are intoxicated. Alcohol use is also accountable for some early sexual experiences (e.g. Belarus, the Russian Federation, Kenya and South Africa) (WHO, 2005). Alcohol use and sexual risk behaviours are particularly rampant in settings such as nightclubs, bars, dark houses, highway eating joints and motels, and brothels. More so, alcohol is frequently used as a sex facilitator, a symbol of gender roles and masculinity, and a source of relaxation, leisure, entertainment, recreation, mingling and improving interpersonal skills (e.g. in Mexico and Romania). Alcohol is at times if not in most cases used in gathering the confidence and gut to approach the differing sex. (WHO 2005) reports that being a male is often linked to the ability to have many partners, drink alcohol and engage in unrestrained behaviour. (WHO, 2005) goes further to describe that when it comes to women, alcohol drinking surges participation in hazardous sexual encounters and sexual harassment, leaving them vulnerable to the dangers of unwanted pregnancies and STIs for instance in the Russian Federation and South Africa. It was also reported that alcohol use and sexual promiscuity escalate in certain festivities and celebrations in different countries. (WHO, 2005) accounts that drinking alcohol and random sexual intercourse are normal during funerals among certain population groups in Kenya. Dry sex (a favourite in some rural tribes in Zambia and South Africa), sexual cleansing and levirate marriage (Zambia) increase the risk of transmission of sexual diseases - STIs in Africa. The media plays yet another imperative role in modelling and manipulating sexual behaviour and alcohol use patterns and frequencies. Some kinds of advertisements, pornographic movies, thrillers and romantic programmes idealise and promote indulgence in these activities (WHO, 2005).

#### 2.3.5 Health Effects of Alcohol

In the United States, after cancer and heart disease, alcoholism is the third leading health problem according to Pastorino and Doyle (2011). It is estimated that excessive alcohol consumption costs Americans more than \$185 billion per year because of its negative effects on health and the ability to work. Hundreds of thousands of lives are lost each year as a result of alcohol-related crimes and accidents (Andersson, 2008). Alcohol affects the GABA neurotransmitter, which is has to do with anxiety levels. In low dosages, alcohol may make one feel more sociable and relaxed. Alcohol is also a depressant to the functioning of the cerebral cortex. Thus besides feeling calm and relaxed, one is more likely to shed their inhibitions in regard to their thoughts and behaviours. When people take alcohol, they are more willing to be silly or aggressive, share their feelings, or participate in behaviours that they would hesitate to do if they were sober. Alcohol is also an inhibitor to the functioning of the brain stem, impairing motor functioning and coordination. It slows down the reaction time and reflexes. When one's tolerance is exceeded, their speech becomes slayed and their judgment is impaired. It also becomes more difficult for one's brain to attend to stimuli, process information, and form new memories. Alcohol may cause retrograde amnesia and also reduces the time spent in REM sleep, which plays a fundamental role in memory processing. Chronic alcoholism can lead to Korsakoff's syndrome, a memory disorder caused by a deficiency of vitamin B (thiamine). A person who is an alcoholic often substitutes alcohol for more nutritious foods, which results in numerous vitamin deficiencies. Because drinking alcohol results in reduced inhibitions, individuals are more possibly going to take part in risky sexual activity (Mpofu et al, 2005).

#### 2.3.6 Association between Substance Use and Sexual Risk Behaviours

Physiologically, alcohol use slackens and weakens cognitive functions, which may result in poor decision making and poor judgement as well leading to unsafe sexual behaviour, particularly unprotected sex. The link between alcohol use and the transmission or contraction of HIV is however not a simple one, as other factors such as some personality traits or drinking expectancies also effect on both unsafe sex and alcohol use, (Neuman, Schneider, Nanau, Parry, and Chersich, 2012).

Cooper (2002) outlined two models that expound the connection between alcohol and sexual risk behaviour. Acute causal effects of alcohol is the first model. This model undertakes that

one takes sexual risks that would they otherwise have not taken because of the acute effects of alcohol intoxication. As is explained in the Alcohol Myopia theory (Steele and Josephs, 1990), alcohol disinhibits behaviour principally because of its pharmacologic effects on information processing. Simple, highly noticeable cues that instigate behaviour like sexual arousal continue to be processed when the scope and efficiency of information is lowered. In the contrary, more pertinent and complex cues that would prevent behaviour like the chances contracting HIV, are no longer sufficiently managed.

In one study by cited by Cooper (2002) in MacDonald et al., (2000b), strong evidence to the significance of instigating and inhibiting cues in the instant situation emerged. Some male undergraduates were haphazardly exposed to either no alcohol control, or placebo, or intoxicated condition and then divided into low and high arousal groups on the basis of their self-reported response to a film illustrating a probable sexual encounter between an attractive couple. Results indicated stronger intentions to have unsafe sex by only those subjects who were both drunk and aroused. Probably, drunk participants had adequate cognitive capacity to process arousal cues, and lacked the sufficient capacity to process concurrently more insulated inhibiting cues.

The second model, outlined by Cooper (2002), Spurious model, invokes a third-variable explanation in which an individual's stable aspects in their life circumstances are believed to cause both drinking and risky sex. For instance, one may get involved in both behaviours to gratify pleasure or sensation seeking needs, because they cannot cope or just it's their personality traits. Alternatively, one may drink and indulge in precarious sex as part of a superior lifestyle, such as running solitaire or living in a fraternity house (Baer, 1994), where both behaviours are quietly or, in some cases, explicitly encouraged as is the case in a military set up.

In a research carried out by Brown and Vanable (2007), it was found out that instances of unsafe vaginal sex were reported by 39% of the respondents after having used alcohol and concluded that alcohol often leads to unplanned sexual activity often with a new or causal partner and because such drinking encounters are usually more spontaneous, protection is

unlikely to be used. It is reported that people who drink hazardously over the endorsed weekly amounts and/or a large amount of alcohol in a short space of time, are vividly more likely to report multiple sexual partners and the number of partners seems to rise with the amount of alcohol consumed (Royal College of Physicians, 2011). It still has not been proven whether this can be explained as part of a pattern whereby people generally take risks or whether there is a more direct relationship with either the disinhibitory effects of alcohol increasing the likelihood of one wanting to have more partners or those who want more partners actively drinking to get them. Mercer (2011) found out that drinking to intoxication is more likely associated with having unprotected sex with multiple partners and this effect is prevalent more in males than in females.

Royal College of Physicians, (2011) reports that the relationship between the contraction of STIs and alcohol-linked sex has not been exactly studied directly. Nevertheless, STI rates are said to be increasing amongst the younger generation coincidently with increasing levels of alcohol consumption. According to a systematic review of the literature by Cook and Clark (2003), there is the implication that problematic alcohol use is linked to an enlarged risk of acquisition of STIs. Subsequently a reduction in the availability of alcohol through decreased density of alcohol outlets in one study resulted in corresponding decreases in area level gonorrhoea rates in Los Angeles (Cohen, Ghosh-Dastidar, Scribner, 2006). In addition, they found out that attendees at genitourinary medicine clinics report higher levels of hazardous consumption of alcohol than the general population.

Nonetheless, a review by Leigh and Stall (1993), reported that not all investigators have shown that heavy drinking results in risky sexual behaviour and of the studies that assessed more than one risk event per individual, some studies showed no differences in unprotected sex between events including and not including drinking or in alcohol use between risky and safe events. In addition, in many of the studies on high risk behaviour in the context of alcohol use young individuals samples were not equally represented as young people were over-represented and thus, risk taking may be seen as more a function of greater propensity to indulge in high risk behaviour in this cohort

In a paper by Heine and Andersson (n.d) it is reported that according to participants in one Peruvian study, alcohol activates and is used as an excuse for sexual risk-taking behaviour. In them to get clients more easily whilst some homosexual men in Miami in the United States of America reported that alcohol relaxed one and gave them a better sexual experience. Alcohol is a key factor for the prostitutes. Heine and Andersson (n.d) also describe that alcohol facilitates easier link up with customers – and it lightens can make life feel at least a little bit brighter. Over two thirds of the 350 female prostitutes interviewed in Andhra Pradesh, India, indicated the use of alcohol throughout the previous six months. They took alcohol with their customers and with their friends. They indicated that their main reason for drinking was to get rid of mental and physical stress.

In another paper that reviewed literature by professors Freeman and Parry (2006) it is reported that in studies conducted by Morojele et al (2004) in a native township in South Africa amongst adults 22-45 it was found that alcohol use and risky sexual behaviour were significantly linked. In the study two main types of effects which were concluded that drinking liquor may have had on sexual behaviour were branded; drinking is said to increase the appeal of sexual episodes and inhibit people's control with respect to sexual encounters. Thus related to reported increased sexual appeal due to alcohol were variables like being young in age, marital status, employment status, taking more alcohol, being a problem drinker, having a lot of sexual partners and engaging in promiscuous and regretted sex.

#### 2.4 THEORETICAL FRAMEWORK.

#### 2.4.1 Social Cognitive Theory

According to Kasschau (2003), in Bandura's view, people regulate their own behaviour by their choice of inspiration and role models. In the social cognitive theory Bandura (1986) recognizes the interaction called reciprocal determinism that occurs among the observing individual, the behaviour of that individual, and the environment in which the behaviour occurs. Of significant emphasis in the social-Cognitive Theory, are the importance of skills; the skill of self-regulation and the skill of self-efficacy. An individual's self-efficacy can develop through observational learning of others' accomplishments and disappointments, from persuasion by others, as well as from one's own physiological state whilst performing a behaviour. The best informed verdict can be influenced by influences such as a yearning to be

socially acceptable, situational constraints, coercive threats and fear of rejection thus one is forced probably to drink because probably the people around them or their role models drink and at the end they deem it the in-thing. Bandura (1994), notes that if one's perceived self-efficacy is weak, then more social and affective factors like such escalate the probability of risky sexual behaviour.

Research put forward that perceived self-efficacy is central in alcohol use and modifying HIV risk behaviour (Bandura, 1994). The self-efficacy model suggests that health protective behaviour is the result of a process of cognitive assessment that assimilates knowledge, outcome expectancies that is linked with adopting risk deduction behaviour, along with social influences. Emphasis is placed on four major components deemed essential for effective programs of change, targeted at altering all of the three above mentioned interacting determinants (Bandura, 1994).

For one to have self -control, it is vital that they exercise influence over themselves and others by using self-regulatory skills. Self-regulation is there to motivate and guide an individual's actions via internal standards, effective reactions to one's conduct, and the employment of motivating self-incentives and other forms of cognitive guidance (Bandura 1994). An indispensable part of risk-deduction processes is therefore formed and determined by self-regulation skills as to how one is able to effectively fight or repel socially brought hypothetically risky behaviour. Efficacy beliefs, together with goal ambitions, incentives and impediments rooted in outcome expectations, help to regulate behaviour. Because alcohol use coupled with sexual risk behaviours that contribute much to the HIV/AIDS pandemic is a social problem, (in Zimbabwe at national level actually) peoples' shared beliefs in their ability to improve their life circumstances, through collective social determination and work, is central for an effective intervention course (Bandura, 1994).

#### 2.4.2 Alcohol Expectancy Theory

Alcohol Expectancy is defined as the effects expected of drinking alcohol. The Alcohol Expectancy Theory (Jones, Corbin and Fromme, 2001), purport that alcohol consumption is therefore explained by individuals that have alcohol outcome expectations, because they in

fact, seem to drink alcohol such that their expected effects are met. It does not matter whether the outcome expectations are orthodox or unconventionally resultant; they simply need to be apprehended for them to have an effect on a behaviour. The precise alcohol outcome expectations expected and experienced by an individual result from their direct and indirect familiarity with alcohol and its odds and ends. Such antiquities differ from person to person, and the consequent inconsistency in alcohol outcome expectations held explains the drinking behaviour inconsistency seen. A simple opinion is that positive expectations such as if one expects to get jovial if they consume alcohol; represent an importance of motivation to drink whilst negative expectations such as expecting a hangover if they have a few drinks represent an importance of motivation to restrain (Cox & Klinger, 1988).

Expectancy Theory also affords the chance to understand alcohol consumption at all points of the ranges of consumption within a single common framework.

#### 2.5 CHAPTER SUMMARY

The chapter focused on the studies that have been done before on the prevalence and explanations of alcohol use and risk sexual behaviours globally. It has been noted that alcohol use by women, teenagers and young adults has actually increased thus in a way affecting the increase of STI infections that has been recorded in the Sub-Saharan Africa there by evidencing the connection between alcohol and risky sexual behaviours. Theories that explain the use of alcohol and the prevalence of sexual risk behaviour have also been examined in this context.

#### **CHAPTER 3: METHODOLOGY**

#### 3.1 INTRODUCTION

Chapter 3 focuses on the research methodology used so as to appreciate the problem under review. Saunders (2003) stipulate that methodology is the manner in which research should be conducted. Methodology is also perceived by Bhattacharyya (2003), as the description of the nature of the research design, the sampling plan and the collection, presentation and analysis of data. As such, this chapter therefore covers the research design, target population to be sampled, method of sampling, research instruments, data collection procedures and data analysis and presentation approaches.

#### 3.2 RESEARCH APPROACH: QUANTITATIVE

In this research, the quantitative research paradigm, which entails explaining phenomena by gathering numerical data and analyzing it using statistically centered approaches was adopted because it is objective and the researcher is independent from the research findings as reported by Cresswell (1994). Quantitative research is not biased. Its values are emotive and therefore outside the scientific inquiry. It is also a deductive process that seeks to establish cause and effect whilst its context free (Culbertson, 1981). It is also formal and based on set definitions. Greatest of all the paradigm helps to explain and predict behavior which will also enable the psychologist to modify and control behavior for the best.

#### 3.3 RESEARCH DESIGN

Cooper and Schindler (2003) propose that a research design constitutes the outline for collection, measurement, and analysis of data. The method one chooses to employ in research is determined by the nature of the problem into which they are researching on. In this research, Descriptive surveys are the research design chosen. Descriptive surveys are used to describe current situations or conditions. In carrying out descriptive research one naturally uses a pre-established instrument to collect data. Also, according to Slavin (2007), while survey responses can vary from quantitative to qualitative in context, they are usually quantitative and are summarized according to quantitative analyses. For one to complete

descriptive research, they use a sample representative of a larger population to collect data so as to be able to generalize findings to a population (Lodico, 2006).

#### 3.4 TARGET POPULATION

The study targeted officers and men at FAFB of age ranging from 19 to 55 years. Amongst that population are the medical care and social services personnel that should at least gain more insight on the pending problems to do with Alcohol use and sexual risk behaviours and to add on to their budding knowledge findings that should help in formulating ways and policies to curb or reduce the problem and surrounding consequences. Apparently, it appears quite fashionable to be an alcohol user rather than not in a military cantonment due to various reasons. Every member has access to bars and messes during meal times and after work every day thereby making the said population susceptible to alcohol use. Of the said population, at least an estimate of 70% members use alcohol regularly. The target population stands at 400 people.

#### 3.5 POPULATION SAMPLE

The study will draw its participants from FAFB serving members. The Sakaran tables were used to calculate the population sample at a degree of error 0.05. A sample of 196 people was used.

#### 3.6 SAMPLING METHOD

Stratified sampling method was used to recruit participants for this study. Participants were drawn from the population using the ranks as the strata. This was so just to provide a sample that represented all ranks and ages that are at different levels in terms of work, management, supervision, command and responsibility.

#### 3.7 RESEARCH INSTRUMENTS

The study used questionnaires to collect data. As spelt out by Creswell (2012), a questionnaire is a form employed in a survey design that participants in the study fill in or complete and give back to the researcher. Basically, the objective of a questionnaire is to acquire facts and attitudes about a phenomenon from people who are conversant on the particular subject. The aim of using a questionnaire in this case was to survey a representative sample of the population so as to make a generalization from responses of the respondents.

According to Neuman, (2004), the self-administered questionnaire has become the most mutual and widely used approach to compiling data these days. In terms of this research, the questionnaire was quite efficient and economical as it lowered collection costs. The sample was easy to access yet retaining confidentiality and anonymity. In this regard, responses were acquired with less bias as participants freely stated their opinions unafraid. Participants had generous time to comprehend the questionnaire and respond according to their pace and time.

Self-administered questionnaire however have their disadvantages like the fact that some participants however simple, could not grasp questions and therefore failed to respond accordingly. In regulating these shortcomings, the researcher made sure that the questionnaires were constructed in a simple and clear language. A key flaw of the questionnaire was that, it was impossible to pin down respondents so as to converse physically with them respondents, thereby making it impossible to follow up as well.

#### 3.8 DATA COLLECTION PROCEDURES

Data was collected through actual field research using questionnaires in order for the study to capture specific and detailed information from the respondents' narrations, suggestions, opinions, views and comments. The data constituted the main source of information for the study. These questionnaires that were used had both closed ended questions. Closed ended questions were used to provide a choice of answers, some questions only required, for example, a 'yes' or 'no' response. Structured questions were used in order to allow for an easy comparison and quantification of the results. Questionnaires were administered to soldiers, mainly who patronise the mess, police officers and health workers.

Statistical data was solicited from wings and sections at the FAFB, messes and base hospital and considering sensitive records, it was ensured that the subjects were protected from any

kind of harm, therefore, ethical issues were taken into account, and consent from relevant authorities was sought. Owing to the sensitive nature of the records reviewed in various sections the researcher ensured that information obtained from those records were kept confidential. Participants were treated with utmost respect and also confidentiality was exercised.

#### 3.9 DATA ANALYSIS

Upon collecting information from the field, all questionnaires were checked to ensure uniformity, consistence and completeness. The quantitative data collected through questionnaires was coded and then analysed using statistical package in social sciences (SPSS) version 21. SPSS 21 was used in quantitative data analysis because it helps to obtain frequencies and percentages in an accurate, precise, easier and fast way. Methods for verification and analysis of quantitative data included frequency tables, cross tabulation and measures of variability. Measures of central tendencies and dispersion were also used to ascertain description of data.

#### 3.10 ETHICAL CONSIDERATIONS

Ethical issues in research are described by Lancaster, (2005) as a set of morals and values for piloting and using research which must not by all means violated by the researcher. Considering the sensitivity of this study, protection of participants from any kind of harm is a priority that takes precedence over everything else, therefore, ethical issues were taken into account. Thus, first and foremost, consent from relevant authorities was sought. Owing to the sensitive nature of the records that may need to be reviewed in the within the AFZ, the researcher will ensured that information obtained from these records was kept confidential that is, information obtained was restricted to the researcher and used only for academic purposes; secondly, direct and informed consent was sought from participants. Participants were also treated with utmost respect and clearance to proceed with the research sought from the Ethics Committee of the Midlands State University.

## 3.11 CHAPTER SUMMARY

Chapter 3 bounded the methodology the researcher employed to investigate alcohol use and sexual risk behaviours at FAFB. The chapter focused on how the descriptional survey studies design was used to draw a sample in the population, the instruments used and data analysis and presentation. The chapter also explained ethical conduct, the utilisation of primary and secondary data along with the data analysis procedure. Data is collected and laid and presented in the next chapter.

#### **CHAPTER 4: DATA PRESENTATION AND ANALYSIS**

## **4.1 INTRODUCTION**

This chapter presents on the findings of this whole research in harmony with the research methodology used and also the research objectives and questions raised. The chapter seeks to unveil the pertinent findings on the drinking and sexual behaviours of soldiers at Field Airforce Base. The chapter will also present the results of the data analysis.

#### 4.2 DEMOGRAPHIC DATA INFORMATION

#### 4.2.1 Gender Distribution

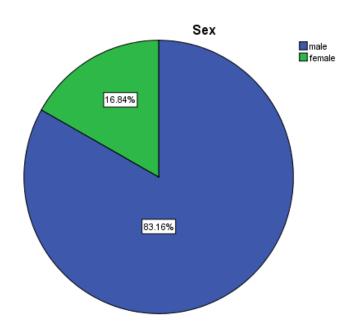


Figure 9: Gender Distribution

A total of 196 people participated, of these 83.16% (n=163) were male and 16.84 (n=33) were female.

**4.2.2 Age** Table 1:*Age* 

	Frequenc	Percent	Valid	Cumulative
	у		Percent	Percent
25 and	28	14.3	14.3	14.3
below				
26-30	103	52.6	52.6	66.8
31-40	46	23.5	23.5	90.3
40-50	18	9.2	9.2	99.5
50 and	1	.5	.5	100.0
above				
Total	196	100.0	100.0	

Ages of the participants ranged from below the age of 25 years to the age of 50 years.

## **4.2.3 Period of Service**

Period of service for members is presented in a bar graph below with (n=23) having worked for 3 years and below, (n=112) for 4 to 10 years, (n=58) for 11 to 20 years and lastly (n=3) for 21 years and above.

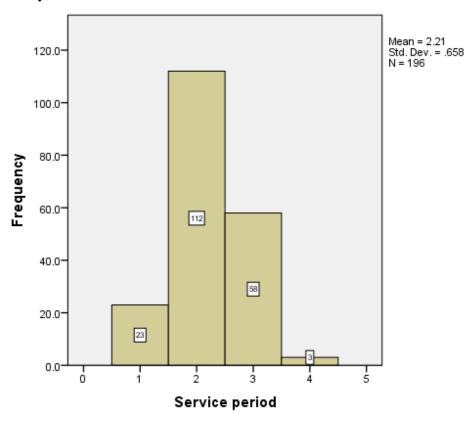


Figure 10: Years of service

## **4.2.4 Marital Status**

Table 2: Marital Status

		Frequenc	Percent	Valid	Cumulative
		у		Percent	Percent
	Single	44	22.4	22.4	22.4
Valid	Marrie	152	77.6	77.6	100.0
Vand	d				
	Total	196	100.0	100.0	

The table above indicates that 77.6 % (n=152) of the participants are married whilst 22.4% (n=44) are single.

## **4.2.5 LIVING ARRANGEMENTS**

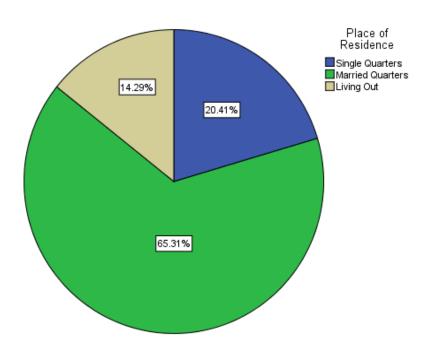


Figure 11: Place of Residence

The bulk of the participants reside in the cantonment area that is in the Married quarters and single quarters characterised by 65.31% and 20.41% respectively while 14.29% reside outside the cantonment area.

## **4.2.6 LEVEL OF EDUCATION**

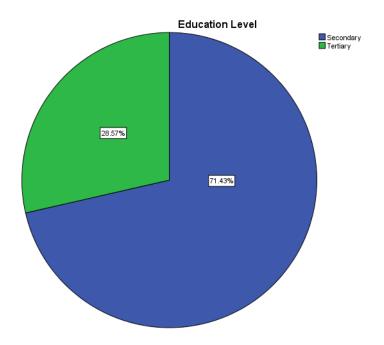


Figure 12: Education Level of participants

Most participants attained secondary education (71.43%) whilst others went on to attain tertiary education (28.57%) besides the military courses that every participant basically went through.

## 4.3 RESEARCH QUESTION ONE

1. What are the patterns and frequencies of hazardous and harmful alcohol use amongst serving members?

## 4.2.1 Life Time Prevalence of Alcohol Use

Table 3: Lifetime Alcohol Use

	Frequenc	Percent	Valid	Cumulative
	у		Percent	Percent
Yes	159	81.1	81.1	81.1
No	37	18.9	18.9	100.0
Total	196	100.0	100.0	

81.1% (n=159) have reported to have used alcohol at some point in their lives while 18.9 (n=37) have subscribed to never using alcohol.

## 4.3.2 Past Year Prevalence of Alcohol Use

# Frequencies of Past Year Alcohol Use in Percentile

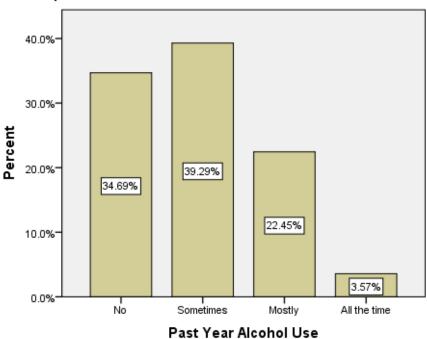


Figure 13: Past year alcohol use

Most respondents indicated to have used alcohol in the past year save for only 34.69% of the participants.

## 4.3.3 Past Month Prevalence of Alcohol Use

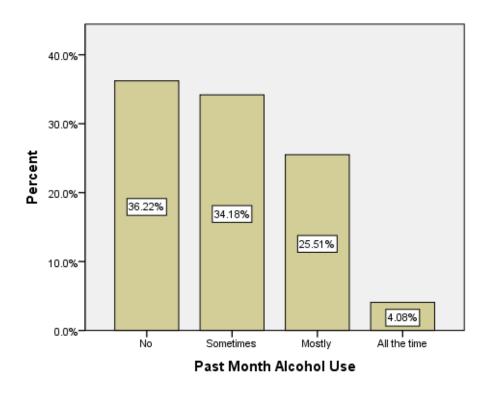


Figure 14: Past month alcohol use frequency

The diagram above indicates that only 36.22% (n=71) did not use alcohol in the past month thus 63.78% of the participants at some point or more used alcohol in the past month.

## 4.3.4 Patterns of Hazardous Drinking -Drinking Alcohol to Intoxication

Table 4: Units at a time

		Frequenc	Percent	Valid	Cumulative
		У		Percent	Percent
	3	31	15.8	15.8	15.8
	5	79	40.3	40.3	56.1
Valid	other above	15	7.7	7.7	63.8
vand	5				
	idont drink	71	36.2	36.2	100.0
	Total	196	100.0	100.0	

As indicated in Table 4, 48% (n=94) participants recorded taking 5 or more units of alcohol at a goal which is harmful drinking. Of the total sample, only 15.8% (n=31) reported sensible drinking.

## **4.4 RESEARCH QUESTION TWO**

What are the emergent patterns and frequencies of risk sexual behaviour amongst serving members?

# 4.4.1 Have you ever had Sex with a Partner you are not in a Relationship with after Taking Alcohol?

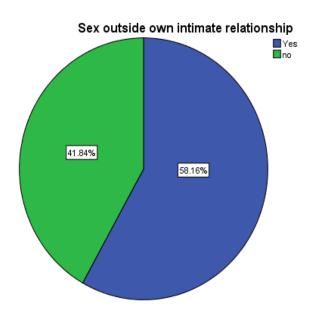


Figure 15:Sex outside initimate relationship

Prevalence of promiscuous behaviour by participants after taking alcohol at some point in their lives or more as indicated above was reported by 58.16% (n=114) participants.

## 4.4.2 DO YOU ALWAYS USE PROTECTION?

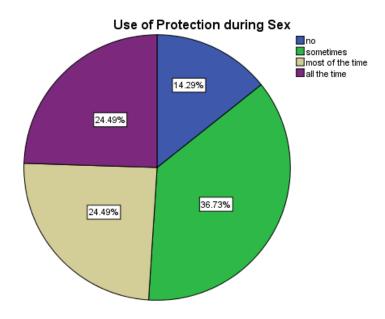


Figure 16: Use of protection

Only 24.49 (n=48) participants reported consistency on the use of protection during sex. Participants that subscribed to never using protection were 14.29% (n=28).

## 4.4.3 Have You Ever Suffered From an STI?

Table 5: Suffered STI once or more

		Frequency	Percent	Valid	Cumulative
				Percent	Percent
	Yes	61	31.1	31.1	31.1
Valid	No	135	68.9	68.9	100.0
	Total	196	100.0	100.0	

The table above shows that 31.1% (n=61) participants indicated to have at least suffered from an STI in their lives and 68.9% (n=135) to have never suffered from an STI in their lives.

# 4.5 RESEARCH QUESTION THREE

Is there association between sex, marital status and living arrangements and alcohol use among serving members?

## 4.5.1 Association between Alcohol Use and Sex.

Table 6: Case Processing Summary

	Cases						
	Valid		Missing		Total		
	N	Percent	N	Percent	N	Percent	
Lifetime Alcohol Use * Sex	196	100.0%	0	0.0%	196	100.0%	

## 4.5.1.2 Lifetime Alcohol Use and Sex Cross tabulation

Table 7: Frequencies Lifetime Alcohol use and sex

		Se	Total	
		Male	female	
Lifetime Alcohol	Yes	150	9	159
Use	No	13	24	37
Total		163	33	196

## 4.5.1.3 Chi-square Analysis

Table 8: Chi-Square Tests

	Value	df	Asymp. Sig.	Exact Sig.	Exact Sig.
			(2-sided)	(2-sided)	(1-sided)
Pearson Chi-Square	75.139 <sup>a</sup>	1	.000		
Continuity Correction <sup>b</sup>	70.970	1	.000		
Likelihood Ratio	60.545	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear	74.755	1	.000		
Association					
N of Valid Cases	196				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.23.

## 4.5.1.4 Effect Size

Table 9Symmetric Measures

		Value	Approx.
			Sig.
Nominal by	Phi	.619	.000
Nominal by	Cramer's	.619	.000
Nominal	V		
N of Valid Cases		196	

#### **4.5.1.5** Results

Pearson Chi-square was conducted to establish whether there is an association between alcohol use and sex, marital status, place of residence and sexual intercourse outside intimate relationship. This statistical procedure was used because frequency data were present for all the variables. The association between alcohol use and sex was significant as  $\chi^2(1.N=196) = 75.139$ , p < .05. The effect size for this finding Cramer V was .619.

b. Computed only for a 2x2 table

## 4.5.2 Association between Lifetime Alcohol Use and Marital Status

Table 10: Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Lifetime Alcohol Use * Marital	196	100.0%	0	0.0%	196	100.0%
Status						

# **4.5.2.2 Lifetime Alcohol Use and Marital Status Cross**

## tabulation

Table 11: Frequencies lifetime alcohol use and marital status

		Marita	Total	
		Single	Married	
Lifetime Alcohol	Yes	39	120	159
Use	No	5	32	37
Total		44	152	196

## 4.5.2.3 Chi-square Analysis

Table 12*Chi-Square Tests* 

	Value	df	Asymp. Sig.	Exact Sig.	Exact Sig.
			(2-sided)	(2-sided)	(1-sided)
Pearson Chi-Square	2.092 <sup>a</sup>	1	.148		
Continuity Correction <sup>b</sup>	1.507	1	.220		
Likelihood Ratio	2.290	1	.130		
Fisher's Exact Test				.191	.107
Linear-by-Linear	2.081	1	.149		
Association					
N of Valid Cases	196				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 8.31.

#### 4.5.2.4 Effect Size

Table 13 Symmetric Measures

		Value	Approx.
			Sig.
Nominal by	Phi	.103	.148
Nominal by Nominal	Cramer's	.103	.148
Nominai	V		
N of Valid Cases		196	

## **4.5.2.5 Results**

There was no association between alcohol use and marital status,  $\chi^2$  (1, N=196) =2.092, p > 0.05. Thus the variables were independent of each other. The effect size for this finding was Cramer V.103.

b. Computed only for a 2x2 table

## 4.5.3 Association between Lifetime Alcohol Use and Place Of Residence

Table 15:Frequencies place of residence and lifetime alcohol use

		Place of Residence			Total
		Single	Married	Living	
		Quarters	Quarters	Out	
Lifetime Alcohol	Yes	35	101	23	159
Use	No	5	27	5	37
Total		40	128	28	196

# 4.5.3.3 Chi-square Analysis

Table 16:Chi-Square Tests

	Value	df	Asymp. Sig.
			(2-sided)
Pearson Chi-Square	1.492 <sup>a</sup>	2	.474
Likelihood Ratio	1.593	2	.451
Linear-by-Linear	.496	1	.481
Association			
N of Valid Cases	196		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.29.

#### 4.5.3.4 Effect size

Table 17 Symmetric Measures

		Value	Approx.
			Sig.
Nominal by	Phi	.087	.474
Nominal by	Cramer's	.087	.474
Nominai	V		
N of Valid Cases		196	

#### 4.5.3.5 Results

There was no association between alcohol use and place of residence,  $\chi^2$  (2, N=196) p = 1.492, p > 0.05. The effect size for this finding Cramer V was 0.087.

## **4.6 QUESTION FOUR**

What is the association between substance use and risk sexual behaviour

## 4.6.1 Association between Substance Use and Risky Sexual Behaviour

Table 18: Case Processing Summary

		Cases					
	Va	lid	Mis	Missing		Total	
	N	Percent	N	Percent	N	Percent	
Lifetime Alcohol Use	196	100.0%	0	0.0%	196	100.0%	
* Sex outside own							
intimate relationship							

# **4.6.2** Lifetime Alcohol Use And Sex Outside Own Intimate Relationship

Table 19: Frequencies lifetime alcohol use and sex outside intimate relationship

		Sex outside	Total	
		relationship		
		Yes	no	
Lifetime Alcohol	Yes	99	60	159
Use	No	15	22	37
Total		114	82	196

# 4.5.3 Chi-square Analysis

Table 20: Chi-Square Tests

	Value	df	Asymp. Sig.	Exact Sig.	Exact Sig.
			(2-sided)	(2-sided)	(1-sided)
Pearson Chi-Square	5.821 <sup>a</sup>	1	.016		
Continuity Correction <sup>b</sup>	4.963	1	.026		
Likelihood Ratio	5.749	1	.017		
Fisher's Exact Test				.025	.013
Linear-by-Linear	5.791	1	.016		
Association					
N of Valid Cases	196				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 15.48.

## b. Computed only for a 2x2 table

#### 4.6.4 Effect size

Table 21: Symmetric Measures

		Value	Approx.
			Sig.
Naminal by	Phi	.172	.016
Nominal by Nominal	Cramer's	.172	.016
Nominai	V		
N of Valid Cases		196	

#### **4.6.5** Results

Chi-square analysis between alcohol use and risk sexual behaviour showed that association between those two variables was significant,  $\chi^2$  (1.N=196) = 5.821, p <0.05. The effect size for this finding, Cramer V was .172

#### 4.7 CHAPTER SUMMARY

In chapter 4, empirical data gathered through a cross sectional descriptive survey was presented. This chapter sought to identify patterns and frequencies of soldiers alcohol use and risk sexual behaviours. Demographic variables were also presented and analysed in this chapter. Lastly association between alcohol use and risk sexual behaviours was analysed and presented.

The next chapter discusses the findings that have been derived from this chapter 4 and concentrates on clarifying the findings within the perspective of the conceptual framework, other related studies and their inferences for mitigation.

## **CHAPTER 5: DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 INTRODUCTION**

Chapter 5 will discuss the findings from the data gathered and presented in the previous chapter. The findings will be discussed to evaluate whether every research question answered and in context to the theoretical framework and related research studies. Study results will explored and compared with existing literature from reviewed studies on alcohol use and risk sexual behaviours.

## 5.2 DISCUSSION RESEARCH QUESTION ONE

#### Patterns and Frequencies of Hazardous Alcohol Use amongst Serving Members.

In this study, 81.1% of the sample reported to have at least used alcohol in their lifetime thus prevalence was very high. A significant sample of 65.31% of the total participants reported to have used alcohol in the past year. Also, of the total participants, 63.78% reported to have used alcohol in the Past month. In comparison to alcohol use in Zimbabwe in general, prevalence was reported to be at 42.8% (WHO, 2004). This then implies that alcohol use is higher in prevalence amongst soldiers than in the general population.

Of the total sample, 48% of the participants indicated harmful drinking and only 15.8% reported sensible drinking. In the general populace, the percentage is lower as 27.8% are reported heavy episodic drinkers. The prevalence of harmful drinking in this study is too high in Zimbabwe although maybe surpassed in contrasting with other military services for instance the UK armed forces indicated that 67% its male soldiers and 49% female soldiers reported hazardous drinking (Fear, 2007).

#### 5.3 DISCUSSION RESEARCH QUESTION TWO

What are the emergent patterns and frequencies of risk sexual behaviour amongst serving members?

As presented in figure 7, 58.16% of the sample reported to have had sexual intercourse at least once with a partner they were not in an intimate relationship with after using alcohol. In figure 8, only 24.49% indicated a consistent use of condoms during sex. In comparison,

Brown and Vanable (2007), in their study found out that instances of unprotected vaginal sex were reported by 39% of the participants after having used alcohol and came to the conclusion that alcohol more often than not, led to random sexual activity often with a different or causal partner and since such drinking encounters are usually more unprompted, protection is unlikely to be used. Consistent with this study too, Mulenga (n.d) in his study results indicated that 39.1% of respondents had taken alcohol the last time they had sexual intercourse with a non-regular partner. It is reported that almost similar results were witnessed in a study done in Burkina Faso, Cameroon and Namibia on alcohol and drug use among military personnel and mobile populations; which revealed that alcohol use, was a big delinquent particularly among male soldiers. Alcoholic beverages have been reported to be also used as means in approaching the dissimilar sex (WHO 2005), thus it gets so much easier for people to sexually indulge where there is alcohol. It is as well disturbing to note that only 24.49% of the total population reported consistent use of condoms in this day and age were the nation is fighting against STIs and HIV/AIDS.

#### 5.4 DISCUSSION RESEARCH QUESTION 3

#### Association between Sex, Marital Status and Living Arrangements and Alcohol Use

Findings from this study have indicated that the association between alcohol use and sex/gender was significant and the effect size was large. Alcohol use was more prevalent in men than ladies. These findings are in sync with all the findings of studies that have been carried out pertaining to alcohol use (WHO, 2005).

The fact that males tend to consistently use alcohol over the ages can be explained in terms of social, norms, traditions, cultures and gender roles. It is indeed permissible for males to be using alcohol in most Sub-Saharan countries in Africa (WHO, 2005). Martinez (2013) also reported that it is the culture that defines who drinks alcohol, where and for what reason.

On the contrary marital status and living arrangements were independent of each other as the study found out that there was no association between them. Whether one was married, stayed at the married quarters or single quarters in the cantonment area or they stayed outside the cantonment area, did not necessarily determine their drinking behaviour. The case would perhaps have been a bit different if the living arrangement also included soldiers in deployment as indicated by Mulenga (n.d). To complement Mulenga's observation, the

UNAIDS (2005) reported that in an environment of limited or no action facilities among peace keepers, practices such as alcohol and drug use become alternatives to recreation and passing time which is a different case for the living arrangements described in this paper.

#### 5.5 DISCUSSION RESEARCH QUESTION 4

#### Association between Alcohol Use and Risk Sexual Behaviour

Alcohol use came out significantly related to risky sexual behaviour as shown in table 20. It was found out in this research that alcohol drinking and sexual intercourse out of a steady relationship were not independent of each other but dependent variables. Described and discussed earlier in this paper back in chapter 2, is how alcohol use may ultimately lead to risky sexual behaviour. Cooper (2002) defined two models to this explanation where Acute causal effects model adopts the stance that severe effects of drunkenness may cause one to risk sexually than they would have if they were sober and the Spurious model, raises a third-variable explanation where constant characteristics of the individual or of their life's state of affairs are believed to cause alcohol consumption and unsafe sex. In a paper that reviewed literature by professors Freeman and Parry (2006) it is reported that in studies that Morojele et al (2004) conducted, in a native township in South Africa amid adults 22-45 years of age, strong connections between severalmeasures of alcohol use and risky sexual behaviour were found. Thus this research findings regarding to alcohol use and risky sexual behaviour, is consistent with prior studies that sought to establish association between alcohol use and risky sexual behaviours.

#### **5.6 CONCLUSIONS**

Alcohol use and risky sexual behaviour has been always a global phenomenon that affects everyone in one way or the other and it is noted with great dismay especially when one ponders upon the consequences and associated effects like the health burden that it is much more prevalent amongst the security forces than in the general population in some countries including Zimbabwe. Globally, some patterns of alcohol use have shown to raise some public health concerns especially when the use exceeds sensible drinking.

It emerged that risky sexual behaviours were prevalent among soldiers as was evidenced by the fact that more than half the participants at some point had sexual intercourse with some random partner that is, a partner they are not in an intimate relationship. Also, the fact that 3 quarters of the sample of the study admitted to the inconsistent use of protection to not using at all poses a sexual health threat and risk.

The study also proved that there was a noteworthy association between sex/gender and alcohol use. This finding is also consistent with prior researches as patterns and frequencies of alcohol use are mostly attributed to culture and gender roles. However marital status and living arrangements had no significant association with alcohol use.

The study sought to establish the association between alcohol use and sexual risk behaviours. It was established that there is a substantial association between the two variables. Prior studies have also established the linkage between alcohol consumption and risky sexual behaviours even though some authors still beg to differ.

#### 5.7 RECOMMENDATIONS

There are quite reflective inferences from this study. Prevention is said to be better than cure. Instead of deploying resources towards mitigating effects and consequences of alcohol use for instance, deaths, diseases and accidents caused by alcohol, it is rather healthier for our economy as a nation and healthier for individuals to formulate and implement prevention strategies and formulations starting from the grassroots. Prevention strategies are recommended so as to nip in the bud. In this case, efforts can target at educating soldiers on the effects of alcohol on their health, the consequences associated with alcohol use and at large how alcohol use that is hazardous and harmful is a burden to the national economy and to individuals as well. So before one uses alcohol they are well informed on the effects.

Establishment of a training program for commanders and social worker staff among the military officers who can identify and provide the necessary counselling and advice to soldiers who engage in hazardous and harmful alcohol consumption and sexual risk behaviours. Soldiers should be encouraged to practice safe sex and most probably to stick to one sexual partner so as to avoid contraction of STIs and HIV.

At structural levels policy makers and stakeholders can monitor the enforcement of the Zimbabwe National Alcohol Policy (2011). The Zimbabwe National Alcohol Policy is a

comprehensive national strategy to address and reduce the harmful use of alcohol. The Policy stretches into the health sector and beyond to engage development, transportation, justice, social welfare, agriculture, trade and commerce, education as well as employment and the community in partnerships so that the entire population can be free from alcohol related harm.

To be noted for future research, in the Airforce of Zimbabwe and in the Zimbabwe Defence Forces at large, this is the first study of its kind thus there is no prior information retrievable in regards to alcohol use, hazardous, harmful or sensible and risk sexual behaviours among soldiers. To this effect, the study was short of enough information and relevant experience to build on in carrying out the research and formulating the inferences of the findings. Developing a clear picture of the extent of alcohol use within the military is very difficult. The unwillingness of the participants to honestly disclose information may have been a probable source of bias.

Although the study used a validated data collection instrument and the sampling design representing the study area, there are some limitations. The survey was done at Field Airforce Base, and hence the results can only be generalized to the sampled population and not the entire Zimbabwean military service. Also, the study questionnaire was put out in English so there may have been interpretation challenges by respondents

#### **5.8 CHAPTER SUMMARY**

Chapter 5 discussed the research findings of the study in regards to the research questions. Alcohol use is a global burden that might not go away anytime soon or never go away in any case. While it affects every individual universally, it has emerged in this study that alcohol use is more prevalent in the military populations more than in the general populace. Risky sexual behaviours were found to be as well prevalent among the soldiers in this study whilst they are associated with alcohol use. All these findings and the implications of the study for prevention were highlighted as well as recommendations for future research.

#### REFERENCES

- American Psychiatric Association (2000) *Diagnostic and Statistical Manual of Mental Disorders*, Revised 4th edition, Washington, DC.
- Andersson, P. (2008) Global Hangover: Alcohol as an Obstacle to Development
- Bandura, A. (1986) *Social Foundations of Thought and Action: A Social Cognitive Theory*. Englewood Cliffs: Prentice Hall.
- Bandura, A. (1994) Social Cognitive and Exercise Control over HIV infection In R.J.
   Diclenten & J.L Person eds, Preventing Aids; Theories and Methods of behavioural intervention.
   New York: Plenum.
- Barbor, T.F., Higins-Biddle J.C., Saunders, M. & Monteiro, M.G. (2001) *The Alcohol Use Disorders Identification Test: Guidelines for Primary Health Care*, 2nd edition. Geneva: World Health Organization
- Brown J.L. and Vanable P.A. (2007) Alcohol Use, Partner Type and Risky Sexual Behaviour among College Students: Findings from an Event-Level Study. *Addictive Behaviors* 32, 2940–2952 doi:10.1016/j.addbeh.2007.06.011
- Chakanyuka, T. (2014). Zimbabwe has riskiest drinkers in Africa. (The Sunday News 4 May 2014)
- Chersich, M.F., Rees, H.V., Scorgie, F., & Martin, G. (2009) Enhancing global control of alcohol to reduce unsafe sex & HIV in sub-Saharan Africa. *Globalization & Health*, Vol 5 (16), 1-6.
- Clinard, M.B. and Meir, F.R. (2004). *Sociology of Deviant Behavior*. New York: Holt, Rinehart and Winston, Inc.
- Cohen, R., Ghosh-Dastidar, B. and Scribner, R. (2006) Alcohol Outlets, Gonorrhea, and the Los Angeles Civil Unrest: A Longitudinal Analysis. *Social Sci Med* 62, 3062–71.
- Connor, J., Psutka, R., Cousins, K., Gray, A. and Kypri, K. (2013) Risky Drinking, Risky Sex: A National Study of New Zealand University Students. *Alcoholism: Clinical and Experimental Research* 37(11) 1971–1978 DOI: 10.1111/acer.12175

- Cook, R.L. and Clark, B.L. (2005) Is There an Association Between Alcohol Consumption and Sexually Transmitted Diseases? A Systematic Review. *Sexually Transmitted Diseases* 32:156–164.
- Cooper, M.L. (2002) Alcohol Use and Risky Sexual Behaviour among College Students and Youth: Evaluating the Evidence. *Journal of Alcohol* (14):101–117.
- Cox, W. M. & Klinger, E. (1988) A motivational model of alcohol use, *Journal of Abnormal Psychology*, 97, 165–180
- Cox, W.M. and Klinger, E. (1988) A Motivational Model of Alcohol Use. *Journal of Abnormal Psychology*, 97, 165–180.
- Cresswell, J.W. (2008) Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research. Upper Saddle River, NJ: Pearson Education, Inc.
- Creswell J.W. (2003) Research *Design Qualitative, Quantitative and Mixed Methods Approaches* (2<sup>nd</sup>ed). Thousand Oaks: Sage Publications
- Creswell, J. W. (1994). Research Design: Qualitative and Quantitative Approaches.

  Thousand Oaks, CA: Sage Publications
- Culbertson, J.A. (1981). Three Epistemologies and the Study of Educational Administration.

  University of California Educational Administration Review, 22, (1), 6.
- Dadi, A.F. and Teklu, F.G. (2014) Risky Sexual Behavior and Associated Factors among Grade 9-12 Students in Humera Secondary School, *Science Journal of Public Health*. Vol. 2(5) pp. 410-416. doi: 10.11648/j.sjph.20140205.16
- <u>Donald, R., Cooper, M.L. Pamela S. Schindler</u> (2009) *Business Research*, London: McGraw-Hill School Education Group.
- Edwards, G.A. and Hodgson, R. (1981) Nomenclature and Classification of Drug-And Alcohol-Related Problems", Bulletin of the World Health Organization, Vol.59 (2) 225-242.
- Fear, N.T., Iversen, A., Meltzer, H., Workman, L., Hull, L., Greenberg, N., Barker, C., Browne, T., Earnshaw, M., Horn, O., Jones, M., Murphy, D., Rona, R.J.,

- Hotopf, M., & Wessely, S, 2007, Patterns of drinking in the UK Armed Forces, 102, (11) pp. 1749- 1759.
- Freeman, M. and Perry, C. (2006) Alcohol Use Literature Review
- Jones, E. & Fear, T.F (2011) Alcohol Use and Misuse within the Military: A Review. International Journal of Psychiatry, Vol 23 pp166-172 DOI 10.3109/09540261.2010550868
- Jones, E.E. (2000) Therapeutic Action. A Guide to Psychoanalytic Therapy. London: Jason Aronson.
- Jones, B.T., Corbin, W. & Kim Fromme (2001) A review of expectancy theory and alcohol consumption. Addiction, (96)57–72 DOI: 10.1080/09652140020016969
- Karp, I. (1980) Beer Drinking and Social Experience in an African Society: An Essay in Formal Sociology, in: Karp, I. B., C. (Ed.) Explorations in African Systems of Thought, pp. 83115 Bloomington
- Kasschau, R. (2003) *Understanding Psychology*. Ohio. McGraw Hill Companies.
- Kawada, T., Inagaki, H., &Kuratomi, Y. (2010) The Alcohol Use Disorders Identification Test: reliability study of the Japanese version, *Alcohol*, 45, pp. 205-207.
- Keller, M., and Vaillant, G.E. (2011). *Alcohol Consumption. Encyclopaedia Britannica Online*. (Retrieved online from <a href="http://www.britannica.com/EBchecked/topic/13398/alcohol-consumption">http://www.britannica.com/EBchecked/topic/13398/alcohol-consumption on 21 June 2015)</a>
- Kilonzo, G.P. & Pitkanen, Y.T. (1992)-, Pombe: *Report of alcohol research project in Tanzania*. University of Helsinki.
- Kinney, J (2006) Loosening the Grip: A handbook of Alcohol Information, 8th edition,
  Boston: McGraw Hill Companies.
- Leedy and Ormrod (2009) Planning and design. London: McGraw Hill School
- Leigh, B.C. and Stall, R. (1993) Substance Use and Risky Sexual Behavior for Exposure to HIV: Issues in Methodology. *Journal of American Psychology*.

- Lodico, M., Spaulding, D. and Voegtle, K. (2006). *Methods in Educational Research: From Theory to Practice*. San Francisco: Jossey-Bass.
- MacDonald, T. K., MacDonald, G., Zanna, M. P., & Fong, G. T. (2000) Alcohol, sexual arousal, and intentions to use condoms in young men: Applying alcohol myopia theory to risky sexual behavior. *Health Psychology*, 19(3), 290-298.
- Marmot, R.M., Bobak, M., Room, R., Pikhart, H., Kubinova, R., Malyutina, S., Pajak, A., Kurilovitch, S., Topor, R., &Nikitin, Y. (2003) Contribution of drinking patterns to differences in rates of alcohol related problems between three urban populations, *Epidemiol Community Health.* 8, pp. 238–242.
- Martinez, P. (2011) Alcohol Use in Special Populations in Africa Data from the World Health Survey and Study on Global Ageing and Adult Health. Oslo: University of Oslo
- McCusker, M.T., Basquile, J., Khwaja, M., Lyon, M.I., & Catalan J. (2002) Hazardous and harmful drinking: a comparison of the AUDIT and CAGE screening questionnaires, *Iernational Journal of Medicine*, vol. 95, no. 9, pp. 591-595.
- McNeely, C., &Falci, C. (2004). School Connectedness and the Transition Into and Out of Health-Risk Behavior among Adolescents: A Comparison of Social Belonging and Teacher Support. *Journal of School Health*, 74(7), 284-292Maree, K. (2010). *First steps in research*. Pretoria: Van Schaik Publishers.
- Mercer, C. (2009) Alcohol Use and STI Risk Behaviours: Evidence From Britain's National Probability Sex Survey: The Second National Survey of Sexual Attitudes and Lifestyles. *Oral presentation at the World IUSTI Congress*.
- Mercer, C. H., et al. (2001). Sexual Behaviour in Britain: Early Heterosexual Experience. *Lancet*, 358(9296), 1843-1850.
- Morojele, N.K., Kachieng'a, M.A., Mokoko, E., Nkoko, M.A., Parry C.D.H. and Nkowane, A.M., et al. (2006). Alcohol Use and Sexual Behaviour among Risky Drinkers and Bar and Shebeen Patrons in Gauteng province, South Africa. *Journal of Social Science Medicine* 62, 217–27.

- Mpofu, E., Billity, K., Flisher, J.A., Onya, H., & Lombard, C. (2005). Correlates of drug use/substance use and sexual behaviour in MamKweng District, South Africa. *Journal of Psychology in Africa*, 15 (1), 11-15
- Mulenga, R. (n.d) Prevalence and determinants of casual sex among military personnel in Lusaka District". Lusaka: UNIVERSITY OF ZAMBIA
- Murray, R.M., &Bernadt, M. (1980) Early detection of alcohol dependence, *Journal of Hospital Medicine*, vol. 35(3), pp. 1811-5.
- Myadze, T.I. (2014) Alcoholism in Africa during the Late Twentieth Century: A Socio-Cultural Perspective. *International Journal of Business and Social Science* 5(2)
- NAC (2010) *HIV and AIDS Research Priorities for Zimbabwe 2010 2012*. Harare: National Aids Council.
- Neuman, L.W. (2000). Social Research Methods: Qualitative and QuantitativeApproaches, Toronto: Allyn and Bacon
- Neuman, M.G., Schneider, M., Nanau, R.M., Parry, C., and Chersich, M. (2012). The Relationship between Alcohol Consumption and Human Immunodeficiency Virus Infection and Risk: A Systematic Literature Review of High-Risk Groups, With a Focus on South Africa (Chapter 13). In J. Maddock (Ed.) *Public Health Social and Behavioral Health* (pp. 243-292). Riejeka, Croatia: Intech Open Access Publisher
- Odejide, A. (2006) Status of Drug Use/Abuse in Africa: A Review. *International Journal of Mental Health and Addiction*, 4, 87-102.
- Pacific Academy of the Healing Arts (2010), *Alcohol: History of Alcohol*, (retrieved from <a href="http://www.substanceabusecounselortraining.com">http://www.substanceabusecounselortraining.com</a> on 30 May 2015)
- Pastorino, E., & Doyle Portillo, S. (2011). *What is Psychology*? (2nd Ed.). Belmont: Wadsworth Cengage Learning.
- Patra, J., Taylor, B., Irving, H., Roerecke, M., Baliunas, D., Mohapatra, S. and Rehm, J. (2010). Alcohol Consumption and the Risk of Morbidity and Mortality for Different Stroke Types--A Systematic Review and Meta-Analysis. *BMC Public Health*. 10(258) doi: 10.1186/1471-2458-10-258
- Radhika, S. (2006) Acquired Immune Deficiency Syndrome World Watch. 279: 130-136

- Royal College of Physicians (2011) Alcohol and Sex: A Cocktail for Poor Sexual Health.

  Report of the Alcohol and Sexual Health Working Party. London: RCP.
- Saunders, JB, Aasland, OG, Barbor, TF, de la Fuente, JR, & Grant, M 1993, Development of the Alcohol Use Disorders Identification Test (AUDIT): *WHO collaborative project, Addiction*, vol. 88, no.6, pp. 791-804
- Sigelman, C.K. & Rider, E.A. (2009). *Life Span Human Development*. (6th edition). Wadsworth Cengage Learning: Australia
- Sithole, D. (2011). *Alcohol and HIV: Zimbabwe's experience developing an alcohol Policy*. Mental Health Department: Ministry of Health & Child Welfare
- Slavin, R. (2007). *Educational Research in an Age of Accountability*. Boston: Pearson Education.
- Steele, C.M. and Josephs, R.A. (1990) Alcohol myopia: Its Prized and Dangerous Effects. *Journal of American. Psychology*. 45: 921-933.
- Sutton, C.J. (2011). Alcohol Treatment Program for Police Officers: A Multi-Modal Group Therapy Manual, Degree of Doctor of Psychology in Clinical Psychology, Hawaii: Argosy University.
- Sutton, CJ 2011, Alcohol treatment program for police officers: A multi-modal group therapy Manual, Degree of Doctor of Psychology in Clinical Psychology, Argosy University, Hawaii.
- UNAIDS (1998) AIDS and the Military: UNAIDS Point of View. *UNAIDS Best Practice Collection*. Geneva: UNAIDS.
- UNAIDS (2005) "On the Frontline: A Review of Policies and Programmes to Address AIDS

  Among Peacekeepers and Uniformed Soldiers,"
- Verral, N.G. (n.d.) Chapter 4 A Review of Military Research into Alcohol Consumption.

  Nato
- WHO (1992). The World Health Organization's International Classification of Mental and Behavioural Disorders. Geneva: WHO Press.
- WHO (2004) World Health organization status report on alcohol: country profiles, New Zealand: WHO Press.

- WHO (2005). Alcohol Use and Sexual Risk Behaviour: A Cross-Cultural Study in Eight Countries. Geneva: WHO Press
- WHO (2011). *The Global Status Report on Alcohol and Health 2011*. (Retrieved at <a href="http://www.who.int/substance\_abuse/publications/global\_alcohol\_report/en/">http://www.who.int/substance\_abuse/publications/global\_alcohol\_report/en/</a>, on 14 July 2015).
- WHO (2014) Global Status Report on Alcohol and Health. Geneva. WHO Press
- Zambia Defence Force (2008) Zambia Defence Force Human Immune Virus and Acquired Immune Deficiency Syndrome, Annual Report. Lusaka: Zambia

## **APPENDIX A- QUESTIONNAIRE**

MY NAME IS RUMBIDZAI VIDZA. I AM A STUDENT AT MIDLANDS STATE UNIVERSITY

This research is entitled "ALCOHOL USE AND RISK SEXUAL BEHAVIOURS AMONG SOLDIERS AT FIELD AIRFORCE BASE: IMPLICATION FOR HIV/AIDS PREVENTION". It explores frequencies and patterns of alcohol use and the behaviours associated. Information gathered is for educational purposes and therefore is kept confidential.

You are invited to complete this survey so that your experience as a serving member in the Airforce of Zimbabwe can be used towards achieving a healthy and positive living. Your participation is voluntary: you don't have to answer questions that you don't want.

This questionnaire is being used to help identify youth strengths, problems, needs, beliefs, attitudes and opinions.

The results of this survey are completely anonymous; therefore DO NOT put your name anywhere on the survey. Your identity is totally protected; no one will be able to identify you

All answers should be recorded on the survey, there are no right or wrong answers. Please give your honest opinions and answers. Pick only one answer for each question. If you need to change an answer, please erase or cross out completely.

Indicate your response by circling on the appropriate response option(s).

Thank you for your help.

2015 Midlands State University

1.	Are you male or female?
	<ul><li>a. Male</li><li>b. Female</li></ul>
2.	How old are you?
	<ul> <li>a. 25 and below</li> <li>b. 26 - 30</li> <li>c. 31 - 40</li> <li>d. 40 - 50</li> <li>e. 50+</li> </ul>
3.	What is your ethnicity
	<ul><li>a. Shona</li><li>b. Ndebele</li><li>c. Other (specify)</li></ul>
4.	How long have you served in the organisation?
	<ul> <li>a. 3 years and below</li> <li>b. 4-10 years</li> <li>c. 11-20 years</li> <li>d. 21 years+</li> </ul>
5.	Where do you stay?
	<ul><li>a. Single quarters</li><li>b. Married quarters</li><li>c. Outside the cantonment area</li></ul>
6.	What is your marital status?
	<ul><li>a. Single</li><li>b. Married</li></ul>
7.	What is your Educational level?
	<ul><li>a. Primary</li><li>b. Secondary</li><li>c. Tertiary</li></ul>
8.	Have you ever drank any alcoholic beverage in your life (including beer, wine, strong stuff, cider, wine cooler, alcopop, alcoholic carbonated drink, chibuku, kachasu. sikokian. tototo, kangopisa. hwematanda) even experimentally?
	<ul><li>a. Yes</li><li>b. No</li></ul>
9.	Do you still take alcohol?
	<ul><li>a. No</li><li>b. Sometimes</li><li>c. Mostly</li><li>d. All the time</li></ul>
10.	Have you drank alcohol in the past 12 months?

a.	No
b.	Sometimes
c.	Mostly
d.	All the time
Ha	ve you drank
a.	No
b.	Sometimes

- 11. ank alcohol in the past 30 days?

  - c. Mostly
  - d. All the time
- 12. At what age did you start drinking alcohol?
  - a. Below 13 years
  - b. 13 20 years
  - c. 21-30 years
  - d. 31 years +
- 13. How often do you have six or more drinks on one occasion?
  - a. Never
  - b. Less than monthly
  - c. Monthly
  - d. Weekly
  - e. Daily or almost daily
- 14. How often do you drink alcohol?
  - a. Daily
  - b. Twice weekly
  - c. Weekly
  - d. Monthly
  - e. Other (specify)
  - f. I don't drink
- 15. How many pints or quarts or tots or ciders do you take at a goal?
  - a. 1
  - b. 3
  - c. 5
  - d. Other (specify)
  - e. I don't drink
- 16. Do your friends drink?
  - a. No
  - b. Some of them
  - c. Most of them
  - d. All of them
- 17. Who do you usually drink with?
  - a. Friends
  - b. Work colleagues
  - c. Alone

d.	With my family
e.	I don't drink
W	here do you usual

- 18. ally drink at?
  - a. Mess bar
  - b. Public beerhalls, taverns or clubs
  - c. Sports club
  - d. At home
  - e. I don't drink
- 19. During the past year, how often have you needed a drink in the morning to get yourself going after a heavy drinking session?
  - a. Never
  - b. Less than monthly
  - c. Monthly
  - d. Weekly
  - e. Daily or almost daily
- 20. Besides Alcohol, do you take any other psychoactive substances?
  - a. No
  - b. Sometimes
  - c. Most of the time
  - d. All the time
- 21. If yes, tick on the appropriate serial(s) of the psychoactive substances used.
  - a. Mbanje
  - b. Inhalants e.g. glue
  - c. Tobacco
  - d. Snuff
  - e. Other (specify)
  - f. None
- 22. Have you ever had sexual intercourse?
  - a. Yes
  - b. No
- 23. It is easy to get on with strangers during an alcohol drinking session and one event may lead to the next one. Have you ever had sexual intercourse with a total stranger?
  - a. Yes
  - b. No
- 24. Have you ever had sex with a partner you are not in a relationship with after taking alcohol?
  - a. Yes
  - b. No
- 25. Do you always use protection?
  - a. No
  - b. Sometimes
  - c. Most of the time
  - d. All the time

	a. b.	Yes No.	
2	alo reo	ere is a list of some effects or consequences that some people experience cohol. How likely is it that these things happen to you when you drink a cord the number that best describes how drinking alcohol would affect llowing scale:	alcohol? Please
		1= No chance	
		2= Very unlikely	
		3= Unlikely	
		4= Likely	
		5= Very likely	
		6= certain to happen	
happe	n to	not drink at all, you can still fill this out: just answer it according to wl you if you did drink}  ink alcohol ?	nat you think would
	1.	I am more accepted socially	
	2.	I become aggressive	
	3.	I am less alert	
	4.	I feel ashamed of myself	
	5.	I enjoy the buzz	
	6.	I become clumsy or uncoordinated	
	7.	I feel happy	
	8.	I get into fights	
	9.	I have problems driving	
	10.	I have a good time	
	11.	I can't concentrate	
	12.	I feel guilty	
	13.	I feel sick	
	14.	It is fun	
	15.	I get a hangover	
	16.	I have more desire for sex	
	17.	I feel pleasant physical effects	

26. Have you ever suffered from an STI?

 18.	I get mean
 19.	I have problems with memory and concentration
 20.	I am more outgoing
 21.	It takes away my negative moods and feelings
 22.	I become more sexually active
 23.	It is easier for me to socialise
 24.	I feel good
 25.	I am more sexually responsive
 26.	I am able to talk more freely
 27.	I feel sad or depressed
 28.	I am friendlier
 29.	I am more sexually assertive
 30.	I feel more social
 31.	I get a headache
 32.	I feel less stressed
 33.	I experience unpleasant physical effects
 34.	I am able to take my mind off my problems

# APPENDIX B- LETTER FROM ORGANISATION

YOU SHOULD ATTACH A STAMPED LETTER FROM THE ORGANISATION WHERE YOU COLLECTED DATA

## APPENDIX C AUDITSHEET

## MIDLANDS STATE UNIVERSITY

# SUPERVISOR- STUDENT AUDIT SHEET

DATE	TOPIC DISCUSSED	COMMENT	STUDENT'S SIGNATURE	SUPERVISOR' S SIGNATURE
15.04.15	Research Title			
22.04.15	<ul> <li>Objectives of the Study</li> <li>Problem Statement</li> <li>Research Questions</li> </ul>			
18.06.15	Literature Review			
14.07.15	<ul> <li>Thematic Review of Literature</li> <li>Most recent alcohol use prevalence rates, patterns and context</li> <li>Alcohol Use Theories</li> <li>Association between alcohol use and Sexual Risk Behaviours</li> </ul>			
21.08.15	<ul><li>Research</li></ul>			
10.09.15	Research instrument-questionnaire			
04.10.15	Data presentation and analysis			
12.10.15	• Discussion of Findings			
14.10.15	Document formatting			

STUDENT'S SIGNATURE	
SUPERVISOR'S SIGNATURE	