ASSESSMENT OF SUBSTANCE USE AMONG MILITARY PERSONNEL IN KADUNA STATE

BY

Hurera Mouktar MACCIDO
M.ED/EDUC/02312/2010/2011

DEPARTMENT OF PHYSICAL AND HEALTH EDUCATION, FACULTY OF EDUCATION, AHMADU BELLO UNIVERSITY, ZARIA.

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A THESIS SUBMITTED TO THE SCHOOL Of POSTGRADUATE, AHAMADU BELLO UNIVERSITY, ZARIA NIGERIA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER DEGREE IN HEALTH EDUCATION OF THE DEPARTMENT OF PHYSICAL AND HEALTH EDUCATION AHMADU BELLO UNIVERSITY, ZARIA-NIGERIA.

APRIL 2015

DECLARATION

I hereby declare that this study entitled: ***"Assessment of substance use among military personnel in kaduna state"*** has been carried by me in the department of physical and health education. The information derived from literature have been duly acknowledged in the text and a list of references provided. No part of this thesis was previously presented for another degree or diploma at this or any other institution.

…….. ----------

HURERA MOUKTAR MACCIDO **SIGNATURE AND DATE**

CERTIFICATION

This thesis entitled: ***"ASSESSMENT OF SUBSTANCE USE AMONG MILITARY PERSONNEL IN KADUNA STATE"*,** by **Hurera Mouktar MACCIDO** meets the regulations governing the award of the Master degree of Physical and Health Education of Ahmadu Bello University and is approved for its contribution to knowledge and literary presentation.

……. …….
Prof. (Mrs) M. A. Suleiman Date
Chairperson, Supervisory Committee

……. …….
Prof. J.A. Gwani Date
Member, Supervisory Committee

……. …….
Prof. (Mrs)T.N. Ogwu Date
Head of Department

……. …….
Prof. Z. Hassan Date
Dean, Post Graduate School

DEDICATION

This project work is dedicated to my beloved husband (**Mouktar Ibrahim MACCIDO)** who gave me the encouragement to execute this task in my academic carreer.

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ABSTRACT

Indiscipline and rampant clashes between forces personnel with frequent 'accidental discharge' observed among military personnel are often associated with drugs. Drugs are known to have the potency of effecting changes in the perception, feelings and behavior of living organisms. Of more paramount is the use of social drugs referred to as recreational drugs which has become a problem among military personnel in Nigeria of which formations in Kaduna State are part. This study therefore, sought to make an assessment of substance use among military personnel in Kaduna State. The assessment was carried out with the aid of a structured questionnaire, designed by the researcher. The constructed questionnaire was administered to some selected military personnel in five formations within the state through a proportionate random sampling procedure. In all, 644 personnel were involved in the study. Data collected were analyzed using frequencies and percentages, means and standard deviations. The hypotheses were tested with one sample t-test. From the analysis of the data it was found that there are psychoactive substances that are commonly used by military personnel in Kaduna State. Such substances included among others Alcohol and marijuana. That the sources for the psychoactive substances used by military personnel are substantially established to include friends, pharmaceutical outlets, drug patent stores and drug hawkers. And that military personnel take psychoactive substances for some assumed reasons that included the general perception among military personnel that substance use generally enhances performances, that drugs help personnel recover from a hard workout more quickly, help personnel to avoid depression and any form of prolong anxiety and help to eliminate tiredness. It was found that the personnel were aware of the adverse effects which included: cardiovascular diseases, physical pains, restlessness, impaired vision and mental disability among others. Based on the findings it was recommended that periodic orientation on the adverse effects of psychoactive substances use be embarked upon to sensitized personnel on the wrong notion held about advantages of such usages and that effort should be made at discouraging drug hawkers from all military formations in the state as well as enforcement of regular physical activities and recreation to reduce anxiety and prevent psychologically induced stress.

TABLE OF CONTENTS

Title Page i

Certification iv

Dedication v

Acknowledgements vi

Abstract vii

Table of Contents viii

List of Tables xii

List of Appendices xiii

Operational Definition of Terms xiv

Chapter one 1

Introduction 1

1.1 Introduction 1

1.2 Statement of The Problem 3

1.3 Research Questions **5**

1.4 Purpose of the Study 5

1.5 Significance of the study 5

1.6 Hypotheses 6

1.7 Basic Assumption 6

1.8 Belimitation 7

Chapter two **8**

review Of Related Literature **8**

2.1 Introduction 8

2.2 Concept Of Alcohol And Drug Use Among The Military 8

2.3 Classification of Drugs 155

2.4 Factors Influencing The Use of Drugs 16

2.4.1 Stress 17

2.4.2 Inactivity 21

2.4.3 Access 25

2.5 Prohibited/Banned Drugs 27

2.6 Route of Drug Administration 30

2.7 Effect of Psychoactive Drugs on The Users 30

2.8 Effects of Psychoactive Substances Use on Service Delivery By Military Personnel 33

2.9 Theoretical Frame Work ----- 36

2.10 Summary 36

Chapter Three **38**

3.0 Research Methodology **38**

3.1 Introduction 38

3.1 Research Design 38

3.2 Population 38

3.3 Sample and Sampling Technique 39

3.4. Research Instrument....40

3.5 validation....41

3.6 administration of instrument....41

3.7 statistical techniques....41

Chapter four....42

4.0 Results/Data Presentation and analysis....42

4.1 introduction....42

4.2: Results and Data Analysis....42

4.3 Assessment of Substance Used by Military Personnel....44

4.4 Assessment Of Substance Types Use by Military Personnel....45

4.5 Assessment Of Substance Sources Use by Military Personnel....46

4.6 Assessment Of Reasons For Substance Use by Military Personnel....47

4.7 Assessment Of Substance Use on Individual Military Personnel....48

4.8 Effect of psychoactive substances on service delivery by the Military personnel....49

4.9 Test of Hypotheses....50

4.10: Discussions....57

CHAPTER FIVE....63

SUMMARY, CONCLUSION AND RECOMMENDATIONS....63

5.1 Introduction....63

5.2 Summary....63

5.3 Conclusion....65

5.4 Recommendations 66

5.5 Recommendation for Future Research 67

REFERENCES 68

APPENDICES 72

LIST OF TABLES

Table 3.1: Population of military personnel residing in Barracks ……40

Table 3.2: List of Barracks and the sampled Population selected for the study……..41

Table 4.2.1: Distribution of the Respondents by their Demographic Characteristics…….44

Table 4.2.2: Mean scores and standard deviations on the investigated variables of substances use by military personnel……..45

Table 4.2.3: Mean scores on sources of substances used by the military personnel…….46

Table 4.2:4 Mean scores on types of substances used by the military personnel……47

Table 4.2.5: Mean scores on reasons for use of substances by the military personnel…….48

Table 4.2.6: Mean scores on personal effect of used substances on the military personnel…49

Table 4.2.7: Mean scores on effect of personnel drug use on their service delivery…….51

Table 4.2.8: Influence of substance use on service delivery by military personnel in Kaduna state.....58

Table 4.2.9: One sample t-test on knowledge of type of substance use among military personnel……..……55

Table 4.2.10: One sample t-test on sources of psychoactive substances used by military personnel Kaduna state……55

Table 4.2.11: One sample t-test on reasons for substance use among military personnel in Kaduna state……56

Table 4.2.12: One sample t-test on economic gains and its influence on substance usage by Kaduna state military personnel……57

LIST OF APPENDICES

APPENDIX I: Questionnaire - 67

APPENDIX II: Table of mean scores for investigated variables - - - - - - - - - - - - 70

OPERATIONAL DEFINITION OF TERMS

Psychoactive Substances: Drugs taken as stimulants or for social purposes (They included Alcohol, Tobacco, Marijuana)

Prohibited/Banned Drugs: Drugs that are prohibited by laws of the country (they included such drugs like Marijuana, Heroin, Cocaine)

Route For Drug Administration: Process and part of the body through which drugs are injected into the body.

Posttraumatic Stress Disorder: Mental disability resulting from continuous stress and traumatic experiences encountered in combat or during assignment.

Military Personnel: Soldiers who are serving in the Nigerian Army

CHAPTER ONE

INTRODUCTION

1.1 Introduction

The word drug has acquired bad connotations in recent years, because the widespread use of few chemicals that affect the central nervous system (CNS) has become a serious sociological problem. Drugs act on many organs in the body, they have benefits as well as harmful effects in the body and in the way diseases are treated. From the early time, man learned to use drugs to cure diseases, treat various types of ailments, fight infections and reduce pains. With the passage of time man discovered the properties of certain drugs which he later capitalized on in life. Drug and alcohol use have historically been common among military personnel. Drugs have been used by soldiers to reduce pain, lessen fatigue, and increase alertness or to help them cope with boredom or panic that accompany battle. During the U.S. Civil War, medical use of opium resulted in addiction among some soldiers. In the modern U.S. military, drug use become a recognized problem during the Vietnam War in the late 1960s and early 70s. Approximately 20 percent of Vietnam War veterans reported having used narcotics (heroin, opium), on a weekly basis, and 20 percent also were considered to be addicted based on reported symptoms of dependence (Robin, Helzer, & Davis, 1975). Although few personnel continued using heroin when they returned home, there were concerns about addiction.

Similar to drug use, heavy drinking in the military has been an accepted custom and tradition (Bryant, 2008; Schuckit, 2008). In the past, alcohol was thought to be a necessary item for subsistence and morale and, as such, was provided as a daily ration to sailors and soldiers. Within the predominantly male U.S. military population, heavy

drinking and being able to “hold one’s liquor” have served as tests “of suitability for the demanding masculine military role” (Bryant, 1974& Wertsch 1991). A common stereotype has been to characterize hard-fighting soldiers as hard-drinking soldiers. Alcoholic beverages have been available to military personnel at reduced prices at military outlets and until recently during “happy hours” at clubs on military installations (Bryant, 1974, & Wertsch, 1991). In addition, alcohol has been used in the military to reward hard work, to ease interpersonal tensions, and to promote unit cohesion and camaraderie. As peace-keeping mission became popular, manufacturers of drugs started to produce highly potent drugs often with dangerous side effects, to improve performances. Misuse of substances among military personnel, were widespread particularly at the time of the Second World War. Davidson &Neale (1996), further revealed that drugs were administered to soldiers during the Second World War to reduce fatigue. Nevertheless, Mottram (1999) stated that ancient soldiers used stimulants to enhance their physical performance, describing the use of caffeine and alcohol by soldiers between the middle of the nineteenth century and advent of the Second World War. The author concluded that the development of amphetamine stimulants drugs reached its peak around the time of the Second World War, when drugs were administered on combat troops to enhance their mental awareness and delay the onset of fatigue.

Alcohol and other drug use in the armed forces remain unacceptably high, constitute a public health crises and both are detrimental to force readiness and psychological fitness. Although attention tends to be concentrated on the illicit spread and use of heroin, cocaine and cannabis, there is also a vast global trade in legal recreational drugs like tobacco and alcohol, as well as products tranquillizers and hypnotics which have legitimate medical uses but which are also drugs of abuse and dependence (Bryant, 1974, & Wertsch, 1991) .

Just as there is no health benefit without potential toxicity, there is no absolute goodness about drugs. However, their enormous health benefits outweigh the drawbacks in individual cases. There is however, no known drug that is not harmful or even poisonous at high doses, and much of the scientific work on drugs has attempted to widen the gap between effective and toxic doses. Drugs therefore, can affect changes in the perception, feelings and behavior of the organism. The kind and extent of these changes depend on the nature of the ingested substances, the amount present in the body at any point in time, the route and speed of administration, the physiological characteristics and current physiological state of the individual, the physical and social setting when the substance is ingested, the reason(s) it is taken and what changes the substance is expected to make in the feeling of the individual.

In spite of the many different prevention efforts, including drug test, drug education, stronger policies established by interest groups across the globe, social drugs referred to as recreational drugs continued to be used among military personnel in Nigeria which is the concern of this study. The study therefore, sought to make an assessment of substance use among military personnel in Kaduna state.

1.2 **Statement of the Problem**

Given the current military presence maintained by Nigeria throughout the country, the soldier receives much media attention and public interest. This noble position could not explain why those in the military engage in drugs use. Previous literatures have focused on the relationship between military training and crime, including the desensitizing and traumatic effects of killing in combat as well as indulging in such activities. Others have focused on the need to distinguish themselves from the civilian and the always imminent violence perception of the military. Apart from their vintage

position as the control of the means of violence and in fact with absolute monopoly of such control, the military is of vital importance to the organization of the Nigerian society.

Goffman (1991) described a "total institution" as an institution where all parts of life for individuals in the institution are subordinated to and dependent upon the authorities of the institution. Both by definition and by direct reference from Goffman (1991), the military can be considered a total institution. Should a person reside in such a system, it encompasses his or her whole being. It undercuts the resident's individuality. It disregards his or her dignity. It subjects the individual to a regimented pattern of life that has little or nothing to do with the persons' own desires or inclinations. If we accept the military as a total institution, then we must consider the substantial effect it potentially has on the people who serve. The topic of military personnel and involvement in drugs is especially important given the current public concern regarding security challenges in the country and the act among military personnel, during deployment. The media has given a great deal of attention to incidents such as the rape charges against Marines and Army soldiers while deployed to different states and murder charges against soldiers wrongfully killing civilians in combat (Tedeschi, & Lawrence 1996).

It makes intuitive sense to think that an institution that inherently deals with violence through training and exposure might lead to unsanctioned violence among its members, thereby making the military personnel have the perception that they can live by different sets of rules. Though the crimes on humanity may or may not be connected to substance use among the military personnel but they negate the principle of humanitarian service delivery by the military. This study was therefore to investigate the extent of substance use by the military in Kaduna State towards establishing the relatedness to their behaviours.

1.3 Research Questions

This study sought to provide answers to the following specific research questions:

1. From what sources do the military personnel obtain psychoactive substances in Kaduna State?
2. Which psychoactive substances are most frequently used by the military personnel in Kaduna State?
3. What are their primary reasons for use of identified psychoactive substances in Kaduna State?
4. What effects of these identified psychoactive substances have on the military personnel in Kaduna State?
5. What is the effect do drug use on the service delivery of the military personnel in Kaduna State?

1.4 Purpose of the Study

The main purpose of this study is to assess substance use among military personnel in Kaduna state. The specific purposes of the study are to determine the following:

1. Whether there are sources where the military personnel obtain their drugs in Kaduna State.
2. Which psychoactive substance is frequently used by the military personnel in Kaduna State.
3. The reasons for use of identified psychoactive substance in Kaduna State.

4 Whether the psychoactive substances used affect the military personnel in Kaduna State.

- The effect of psychoactive substances on the military personnel service delivery in Kaduna State.

1.5 Significance of the Study

The findings of the study would be beneficial as follows:-

- The findings of this study may motivate health administrators and drug testing institution to make policies geared towards preventing the sources through which psychoactive substances are obtained.
- Recommendations from this study may inspire health educators to carry out campaigns on the effects of drug use on individuals and their services.
- The study may help the general community to understand the effects of drug use on the society through publication of its findings.

1.6 Hypotheses

Based on the research questions, one major hypothesis and four sub – hypotheses were formulated for the purpose of this study:

Major Hypothesis

Psychoactive **s**ubstance use by the military personnel do not significantly affect their service delivery in Kaduna State.

Sub-Hypothesis

1. There are no significant sources for obtaining psychoactive substances by military personnel obtain in Kaduna State.
2. Psychoactive substances are not significantly used by the military personnel in Kaduna State.
3. There are no significant reasons for use of psychoactive substances by the military personnel in Kaduna State.
4. Psychoactive substances have no significant effects on the military personnel in Kaduna State.

1.7 Basic Assumption

On the basis of research evidence, the following basic assumptions were made for the purpose of this study.

- That marijuana is the most commonly used substance among the military personnel in Kaduna State.
- that military personnel obtain their drugs at the counter in Kaduna State.
- That military personnel indulge in the use of psychoactive substance as a result of stress and boredom.

1.8 Delimitation

This study is delimited to Psychoactive substances used among the military personnel in the Nigerian army who were serving in Kaduna State.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter reviewed some of the related literature on substance use by military personnel. The review was conducted under the following subtitles:

2.1 Introduction

2.2 Concept of Alcohol and Drug use Among the Military

2.3 Classification of Drugs

2.4 Factors influencing the use of Drugs by the Military

2.5 Prohibited/banned Drugs

2.6 Route for Drug Administration

2.7 Effect of Psychoactive Drugs on the users

2.8 Effect of use of Psychoactive Drugs on service delivery by Military Personnel

2.9 Theoretical framework

2.10 Summary

2.2 Concept of Alcohol and Drug Use among the Military

It has never been possible to confine drugs to their places of origin. Whenever and wherever man has travelled, he has taken his drugs with him and the associated drug-taking practices have spread too. According to Maisto (1999), more people than ever before travel, and much more people than ever before are exposed to the drug-taking practices of other cultures.

The Indians of South America chewed cocoa leaves on their long, strenuous mountain journeys in order to enhance endurance and suppress the feeling of fatigue. Therefore, drugs can act as a powerful catalyst that induce changes of an exceedingly complex social, psychological and biochemical nature. Drugs could be defined as chemicals or substances which contain chemicals that interact with the complex biochemical system of the human body. The nature of drug is such that it alters the mood, perception or consciousness of the individual to the apparent detriment of the society. Drugs could also be viewed as substances other than food that affects and alter the central nervous system which may be harmful or beneficial. The effects of the administration of drugs can either be positive or negative depending on the type of drug taken, the manner in which the drug is administered and the nature or the physiological make-up of the person. In most cases the type of drug taken will determine the effect it will produce in the body of the user. Drugs can therefore, have addictive, antagonistic, depressive, 'irritative' and or cumulative effects on the body.

A recent study assessed the relationship between combat exposure and alcohol misuse among military personnel returning home from Operation Iraqi Freedom (OIF) Kim,Bliese, Hoge,McGurk, & Thomas (2010).. According to the article, Active Duty (AD) personnel reported experiencing the following forms of combat exposure while deployed: fighting, killing, dealing with the uncertainty of one's life, death, injury, mayhem, and witnessing oppression (Kim, etal., 2010).

According to Kim, etal., (2010), combat exposure becomes embedded within the memories of our women and men in uniform, and alcohol misuse is often a response to traumatic memories which come from the various forms of combat exposure (killing, fighting, death, injury and others) that they experienced while being deployed. According to the National Center for Posttraumatic Stress Disorder (NCPTSD) which distributes

information on research and education on topics related to trauma and posttraumatic stress disorder (PTSD) military personnel misuse alcohol as a way to cope with what they have experienced while serving in the Middle East (PTSD & Problems,2007).

Kim, et al., (2010) surveyed a sample of 1080 OIF and Operation Endurance Freedom (OEF) personnel who had recently returned home from their deployment. Their findings show that 25% of their sample screened,tested positive for alcohol misuse one which was related to the fighting, death, dealing with uncertainty, injury, and the mayhem experienced while in combat. Kim, et al., (2010) & Maguen, Lucenko, Reger, Gahn, Litz, Seal, Knight, & Marmar (2010) studied the misuse of alcohol in military personnel with different combat experiences. Both studies surveyed military personnel who had returned from a deployment within the past six months and looked at various forms of combat exposure experienced by military personnel. Kim, et al., (2010) asked military personnel returning home from both OIF and OEF about their experiences of exposure in fighting, killing, and death. The combat exposures of these military personnel were compared with their alcohol misuse. In a survey administered prior to this study, the researchers found that 37% of those soldiers who had been exposed to combat tested positive for alcohol misuse and 25% of the same sample screened tested positive for alcohol misuse 3-4 months after their deployment (Kim, et al., 2010).

Maguen (2010) studied the impact of direct and indirect killing on military personnel's mental health using a post-deployment assessment. The sample consisted of 2,797 U.S. Army soldiers who had just completed a tour in Iraq. The soldiers were asked if they had killed someone or if they felt someone was killed due to their actions. If they had seen dead bodies of either civilians, or other military personnel, and whether or not they had witnessed someone else being killed .

The results revealed that 16% of the sample had reported being injured, 77% had seen dead bodies, 56% reported seeing someone killed, and 40% reported actually killing in combat. The authors concluded that the various combat exposures placed military personnel at risk for developing symptoms of PTSD and alcohol abuse, mental health/anger difficulties, and psychosocial functioning in intimate relationships. All military personnel who had deployed in support of either OIF or OEF faced the depravities of war: fighting, death, and killing. These different forms of combat exposure can cause intrusive thoughts, flashbacks, and startle responses which are associated with PTSD (Allison ., 2010).

Within this diagnosis is a list of criteria that can be experienced by military personnel who have deployed in support of the wars in OIF or OEF.

Under Criteria (A), the military personnel must meet both in order to receive the diagnosis of PTSD: (1) the military personnel has to have witnessed or experienced an event that either threatened their life or another; (2) the military personnel's response to the event, had to be one of fright or dreadfulness.

For Criteria (B), the military personnel only needs to meet one of the following for more than one month: (1) persistent thoughts and images of the traumatic event; (2) persistent dreams of the actual event; (3) persistent flashbacks and reliving of the event; (4) mental distress associated with internal or environmental stimuli that remind the military personnel of the event; (5) bodily reactions to an inside or outside event that resembles the traumatic experience.

Under Criteria (C), the military personnel must meet at least three of the following for more than I month: (1) an overall avoidance of any conversations or emotions associated with the event; (2) an avoidance of activities and places that remind the military personnel of the traumatic event; (3) not being able to remember different facets

of the trauma; (5) feelings of aloofness and separation from others; (6) limited affect; (7) a sense of hopelessness about one's future.

Criteria (D), two or more of the following for more than I month: (1) insomnia; (2) petulance or feelings of anger: (3) not being able to focus; (4) caution; (5) overstated response to events. The latter criteria's must impact the military personnel's overall functioning in a daily life domain (APA, 2000), PTSD often co-occurs with alcohol misuse. According to The National Center for Posttraumatic Stress Disorder (2008), military personnel who experience trauma, and therefore are diagnosed with this disorder, are more likely to develop drinking problems than those without PTSD (PTSD and Problems, 2007).

The likelihood that military personnel would develop a drinking problem increases as it co-occurs with their traumatic experiences. Close to a third of those who experienced combat in both OIF and OEF report alcohol misuse (PTSD and Problems, 2007). In order to cope with the effects of war and the transition to their civilian life, some military personnel misuse alcohol as a numbing mechanism for readiness. According to findings from Allison (2010), 11% to 17% of OIF and OEF personnel were at risk of misusing alcohol within 3-4 months of returning home from combat duty. Another study followed OIF and OEF personnel for a five year period to survey their alcohol consumption at three outcome measurements: baseline, follow-up and new onset (Jacobson, Ryan, Hooper, Smith, Amoroso, Boyko & Bell, 2008). The researchers surveyed each military personnel, first during 2001-2003, which they termed as baseline, and the second survey was administered during 2004-2006, which was termed as follow-up/new onset. The results showed that those military personnel who had been exposed to the fighting and killing rated higher in all three outcome measures of alcohol misuse at baseline 57.6%, follow-up 56.0%, and new onset 26.6%.

Various researchers have examined the demographic data of military personnel who misuse alcohol after returning home from the wars in Iraq and Afghanistan (Brown, Bray, & Hartzell, 2010; Kim et al., 2010; Jacobson, et al., 2008 &; Maguen ., 2010). Using this data, researchers determined that the following demographics were predictors of alcohol misuse: Being born after 1980: not earning a college degree; being a male active duty soldier; being single; having been exposed to fighting and killing; being a current smoker; being white and; being a member of the Marine Corps (Jacobson et al., 2008 &; Maguen ., 2010). With the evolving presence of women in the military (14.3%), and their increasing participation in combat-supportive roles alongside their male comrades, Brown , 2010; Nunnink, Goidwaser, Heppner, Pittman. Nievergelt, & Baker, (2010), found that combat exposure while deployed have influenced women's alcohol misuse, and increased exposure to trauma and risks of developing PTSD within their study.) In a sample of all female military personnel who had deployed to war, Nunnink , (2010) reported that 31% of those women who had deployed screened positive for PTSD.

Nunnink , (2010) studied military females in more depth. In their study of 36 females, the majority identified themselves as moderate drinkers before entering the military, However, after their daily interaction with their male counterparts, 47% of those women who had deployed screened positive for high-risk drinking (Nunnink ., 2010 & Brown 2010).

Alcohol misuse therefore, has huge implications for readiness for deployment to war for both men and women in the military. According to Brown , (2010), binge drinking and heavy drinking increased from 15.4% in 1998 to 18.1% in 2002 for both genders. These rates also have significant implications for the military system. Some of these implications are related to being passed over for promotion because of drinking, receiving lower performance ratings because of drinking, losing one week or more from

duty because of alcohol-related illnesses, and receiving Uniform Code of Military Justice (UCMJ) punishment because of drinking (Brown , 2010). Losses in daily productivity, driving under the influence of alcohol dependence, increased illness and risky behaviours, and overall health practices are just a few examples of the impacts of alcohol misuse on military personnel who had deployed in support of OIF and OFF (Brown, 2010; Nunnink .; 2010 : &; APA, 2000).

Alcohol misuse within the ranks of our military has also resulted in the Department of Defense (DoD) investing millions of dollars on productivity loss and treatment programs to ensure that military personnel are fit-for-duty and able to deploy if needed (Brown, Bray & Hartzell, 2010). The military has implemented various protective and mediating factors to ensure troop readiness and mental health through the Veterans Administration (VA) and the DoD programs (Brown et al., 2010).

Learning how to cope with the traumatic memories of combat and avoiding/preventing the misuse of alcohol is important not only for the military but for the military personnel. As AD personnel continue to choose manufactured methods of self-medication to increase positive emotions and numb the pain of war, they become, according to Allen (2005), at risk for further trauma. Allen (2005) discussed the vicious cycle of alcohol misuse and PTSD on victims.

Although military personnel become intoxicated with alcohol to cope with combat, this behaviour can become dangerous due to the impaired judgment, blunted awareness, decreased capacity for one to protect himself or herself, and increased chances of experiencing another traumatic event that it causes. As van der Kolk & McFarkane (1996) suggested, PTSD affects person's ability to understand the impact that trauma has had on his or her capacity to solve problems and to deal with new information.

The DSM-IV-TR defined alcohol abuse as determined by an individual meeting at least one of the following criteria within a 12 month period: 1) not being able to fulfill major obligations due to substance use,; 2) operating a vehicle or participating in other dangerous activities while using substances; 3) legal problems associated with alcohol consumption; and 4) continuous use of substances after interpersonal relationships begin to fail (APA, 2000).

2.3 Classification of drugs

Pharmacologically, drugs are generally grouped into a variety of categories. These include: stimulants, depressants, psychedelics, and narcotics.

(a) Stimulants: decrease fatigue and also tend to reduce the feeling of pains, increase alertness and confidence. Examples of stimulants include: cocaine, ephedrine, amphetamine and caffeine.

(b) Depressants: they act by reducing the nervous activity of the central nervous system. They thus calm nerves, reduce anxiety and enhance steady hand and accuracy. They are used to calm pre-anxiety and fear and to relax after the event. Examples include: barbiturates. marijuana, nicotine, alcohol, acebutol, nadolol and solalol.

(c) Psychedelics (hallucinogens): these drugs enrich and expand consciousness, to open up new horizons, to increase creativity and so on. LSD (Lysergic acid diethylamide) is the prototype of this drug. A small dose of LSD (quantity that can rest on head of pin) can generate a startling perceptual alteration and other major psychological changes that can last for eight hours. The perceptual alteration of behavior by drugs produce panic situations to the

point where the user loses control of his mental processes and reacts in a manner often destructive to himself.

(d) Narcotics: they are pain killers. They are used by almost all groups of people to relieve the stresses and pains of working, training and competitions, on the body joints and muscles. Examples include: heroin, morphine, methadone, codeine and pethidine.

Drugs can further be classified into legal and illegal drugs. Legal drugs are those that may be purchased in two ways; over the counter or by prescription. A person buy such drugs as alcohol, tobacco, aspirin, laxatives and cough syrups whenever desired in any drug store, supermarkets or liquor store by paying the required amount over the counter price. A person may also acquire legal drugs such as pep, sleeping and relaxing pills when they are prescribed by a physician for some personal ailment that is in need of treatment or cure.

Illegal drugs such as marijuana, heroin and cocaine considered as narcotics by law may not be purchased through the usual legal channels. However, some legal drugs such as pep or sleeping pills can be considered illegal if they are obtained and sold through unlawful channels.

2.4 Factors Influencing the Use of Drugs

Our military system requires that its members be focused on being physically and mentally ready for combat. Thus, our active duty personnel will have to continue to be able to answer that call in order to maintain their jobs within the system, even with repeated deployments (Brown, et al., 2010). The results of these many deployments have caused military personnel to utilize quick coping mechanisms.

According to the National Center for Posttraumatic Stress Disorder website (NCPTSD), drugs are used to deal with the traumatic events of war and in order to be physically and mentally ready to deploy again if ordered (PTSD and Problems, 2007). The impact of combat on all military personnel returning home from wars, have made the front covers of magazines, newspapers and several news specials (Alvarez, 2008). Research now supports the deadly effects of prolonged alcohol misuse, and the military concurs with these new findings (Maraldi, Harris, Newman, Kritchevsky, Pahor. Koster, & Volpato, 2009).

The Nigerian military is comprised of soldiers. sailors, guardians, airman and Marines. Among these are various members who represent different socio-economic and demographic backgrounds. Whether the military personnel is enlisted or an officer, in an intimate relationship or not, and whether he or she has been exposed to combat while deployed to war, as well as educational background, age, income levels, and ethnicity are all predictors of their predisposition for alcohol misuse (Jacobson , 2008; Maguen , 2010 &; Kim et al., 2010).

2.4.1 Stress

Military personnel who are diagnosed with post-traumatic stress disorder (PTSD) not only have to live with the trauma that occurred during their deployment, but with the continued experience of the traumatic event through daily flashbacks, intrusive thoughts,startle responses and nightmares (Allen, 2001). As their symptoms manifest, our men and women in uniform may try new coping skills to adapt to their trauma symptoms; some of these skills may be adaptive and others, such as alcohol misuse, may be maladaptive. As military personnel continue to grapple with what they think are

"effective" ways to cope with the mental traumas of war, the co-occurrence of PTSD and alcohol misuse could increase in military personnel (Allen, 2001).

The concept of PTSD has evolved from a disorder given to individuals based on an inherent defect like traumatic neurosis to a diagnosis that is based solely on external stimuli or factors, such as being exposed to deadly combat. Having to identify a stressor as the cause of the disorder lessens the stigma associated with having the label of PTSD, because it allowed people, including military personnel, who are diagnosed with PTSD to be given the diagnosis based solely on an identified stressor and not something that can be attributed to the self (APA, 2000). Studies of alcohol usage among post-deployment military personnel have varied, but uniformly troubling findings. Hoge (2004) findings also reported that 24% of returning military personnel agreed on consuming more alcohol than they meant to.

Milliken, Auehterlonie, & Hoge (2007) reported that 12% of military personnel returning home from OIF and OEF agreed to misusing alcohol. In a study compiled by Jacobson et al., (2008) on Reserve and National Guard personnel who had deployed to the Middle East, the researchers showed that the sample were more likely to experience "new onset" of heavy weekly drinking, binge drinking, and alcohol-related problems (9%, 53%, and 15%, respectively) compared with "new onset" rates for non-deployed personnel (6%, 26.6% and 4.8%, respectively).

According to Hoge (2004) ,this practice becomes prevalent owing to the fact that combat troops (95%) of all Marines and 89% of all army soldiers who deployed to war, and the 58% of all army soldiers serving in war experienced an ambush during their deployment. Some other forms of combat exposure that the authors reported military personnel facing were incoming artillery, rocket, or mortar (92%. 86%, respectively), and seeing dead corpses (94%, 95%, and 39%, respectively) (Hoge , 2004 ; & Bemhardt,

2009). These findings are just a few examples not only of the different forms of combat exposure but the significant percentages of military personnel who are affected by it.

A study carried out by APA (2010) revealed that substance use related to stress, the majority of participants report using alcohol, marijuana, or heroin. Given the high number of those who described using substances to deal with stress (70%), especially alcohol use, it is difficult to separate the data along demographic lines. There is no difference in usage between genders, races, or age groups. Ultimately the data showed that most participants who use substances to deal with stress use alcohol, while some use marijuana and even fewer use heroin. It should be noted that most of the participants who reported using marijuana to deal with stress and all of the participants who reported using heroin to deal with stress were referring to combat. These data suggest that in addition to being a personal choice, or a coping mechanism, alcohol use by participants is also indicative of a larger Army culture. Participants talked about drinking as something "everyone does", "it's what we do", "it's all there is to do". This is a very interesting and important finding both in understanding deviant behaviors by those in the military as well as understanding the larger norms of the Army culture.

Marijuana is the substance that was most used after alcohol. As stated earlier, some participants described using marijuana as a way to deal with stress. Others talked about using marijuana not for any particular reason. As exhibited, military personnel may turn to substances such as alcohol, marijuana, and heroin to cope with stress and strain. These statements suggest that negative combat experiences and a lack of positive coping mechanisms may lead to substance use. Much of the relationship between substance use and masculinity can be attributed either to the negative coping of the strain that results from the pressures of masculinity, or to the social learning aspects dealing with

masculinity. However, there is some evidence that the pressures of masculinity lead directly to substance use, not just indirectly through stress and negative coping.

The last strain related theme, and also the only theme remotely associated with control, is that of anomie or "purpose". Participants described using substances because they feel "lost", like "they didn't have anything else to do", that "it didn't matter". One participant who reported high levels of substance use had this perception about his place and purpose in the Army: Nobody cares what I think, I don't get paid to think. So I have no say in shit, no purpose other than to fill boots. It is evident from this data that a feeling of anomie, of loss, and of powerlessness creates strain that is often dealt with through substance use. One could also make the argument that having a sense of power or purpose would act as a control against substance use. This feeling of not having a purpose, a place, a voice does create strain and this strain may be coped with through substance use.

Another study conducted on military personnel administered in a VA system located in San Diego found the co-morbidity of alcohol abuse and PTSD to be slightly higher in newly registered OIF and OEF patients. The authors reported that 17.4% of military personnel were coping with the comorbidity of PTSD and alcohol abuse (Baker, Heppner, Afari, Nunnink, Kilmer, Simmons, Harder, & Bosse, 2009). Jakupcak, Tull, McDermott, Kaysen, Hunt, & Simpson (2010) studied the relationship between PTSD symptoms and alcohol abuse in Iraq and Afghanistan war veterans seeking mental health services at a Seattle Deployment Health Clinic.

The results of this study revealed that 28% of the sample screened,tested positive for alcohol misuse and 37.3% for PTSD. In a study compiled by Kofoed. Friedman, and Peck (1993), the estimates of the percentages of veterans seeking PTSD treatment, who also have some history of substance use, were between 60 to 80%. As these two disorders continue to occur simultaneously ,researchers and healthcare professionals would have to

learn how to treat both of these issues at the same time. It is adaptive for people, including our military personnel, to have strong reactions to traumatic events. It helps our bodies to respond to the threat if it comes again. Unfortunately ,individuals with PTSD continue to react when the stimuli no longer is present. As the symptoms of PTSD manifest themselves in military personnel, some soldiers may choose to misuse alcohol to numb the traumatic memories of their deployments.

2.4.2 Inactivity

The following is the oath of enlistment that is taken prior to joining the Nigerian Armed Forces:

I, ____, do solemnly swear (or affirm) that I will support and defend the Constitution of the Federal Government of Nigeria against all enemies, foreign and domestic; that I will bear true faith and allegiance to the same; and that I will obey the orders of the President of Nigeria and the orders of the officers appointed over me, according to regulations and the Uniform Code of Military Justice. So help me God. ("Army Values. n.d..2009). This oath becomes an agreement between the military personnel and their branch of service. It serves as a form of interface "a contact point between various systems, including individuals and organizations, where interaction and communication may take place" (Kirst-Ashman & Hull,2010). The oath of enlistment is an example of the contract that exists between the military personnel and their branch of service. There are also values that military personnel embody in their service to their country. The Nigerian Army adheres to the values of loyalty, bearing true faith to your country, the army and your fellow soldiers; duty, fulfilling your responsibilities; respect. treating people the way they should be treated; honour, being able to embody the army values; selfless service, putting the needs of others in front of your own; integrity, doing

what is morally and legally right and; personal courage, facing moral and physical fear with courage ("The Army Values, n.d."2009).

The stated values of the Nigerian Navy and Marine Corps are similar honour, to conduct oneself in the highest moral and ethical manner; courage, the ability to face fear and overcome it ,and commitment, the ability to respect all people regardless of their differences, and to fulfill all obligations that come with wearing the uniform (The Values That Define a Marine, n.d. ; & "The Nigerian Navy, 2009). The first core value of the Nigerian Air Force include: integrity, to control all the appetites and elements of one's personality; courage, doing what is right even when the consequences are high; honesty, "our work must be our bond"; responsibility, to fulfill our obligations; accountability, not to shift blame to another person for our mistakes; justice, we are rewarded or punished based on our actions; openness, feedback is necessary in order to track how we are doing while serving; self-respect, behave in a manner that will not bring shame to ourselves or the institution that we represent; and humility, being humbled by the task of serving our Nation (Our Values, 2009).

When military personnel are unable to fulfill these obligations, and thus exhibit these values because they are unable to resume their job due to trauma or sickness, the military system has to find another soldier to "pick up the slack" or stand in the place of the mentally unready soldier (Westphal, 2007). This makes the military system less efficient at working to accomplish its mission to protect and serve the country. The responsibility to find another soldier who not only accomplishes their mission but the mission of the comrade, who is seeking mental health attention, falls on military leaders. The system requires, in these instances, that the leader documents and explains why an individual soldier is absent due to mental illness, and the soldier has to attest to not being mentally stable enough to accomplish his or her mission.

All military personnel have other leaders whose main mission is to ensure that they are adhering to the values and mission being set out by those in power. These "higher ups" receive their orders from others to ensure that the overall mission of the militaryis being accomplished. And since 2003, the mission has been to retain military personnel who can deploy and to discharge those who cannot (Kim et al., 2010; Wright, Cabrera &, McGurk, 2009; Green-Shortridge, Britt & Andrew, 2007; Gutman & Lutz, 2010 ; & Sherman, 2010). Because a mental illness diagnoses puts the military personnel at risk for not being able to deploy again, there is an incentive for military personnel to not present as having a mental illnesses that is related to a previous deployment overseas. Furthermore, if the soldier is told that he or she is not fit to deploy, and thus not capable of completing the mission, they become susceptible to being discharged from the military. This systemic pressure can cause some military personnel to misuse alcohol in an attempt to both numb and mask the effects of their mental illness in order to prevent being discharged from their branch of service. Westphal (2007) gave one example of how issues of mental illness are dealt with when sailors seek help. The author cited one of the responses from a fleet leader who discussed the importance of a sailor being physically and mentally ready to complete his/her mission:

Sailors need to be able to do their, job 100% when they return from any type of medical services. In response to manpower losses, the leaders must use their power and authority to increase the productivity of remaining crew members. Given the burden of manpower losses and demands on leaders' productivity, leaders have an incentive for keeping the number of sailors needing mental health treatment to a minimum. In other words, there is systemic pressure on fleet leaders to ensure that sailors who are seeking mental health services are kept to a minimum. Such system-required procedures stigmatize the personnel who is thus deemed unfit to serve.

As fleet leaders try to keep the numbers of sailors seeking mental health services low, some soldiers may seek to avoid the stigmatization by misusing alcohol as a way to cope (Kim et al., 2010; Westphal, 2007; Calhoun, Elter. Jones, Kudler, & Straits Troster, 2008; Brown et al., 2010; Maguen, 2010 and Jacobson , 2010). Because of stigmatization, in other words, military personnel are reluctant to be diagnosed with any mental illnesses. For the purposes of this study, stigma is defined using the definition for public and self-stigma developed by Greene-Shortridge (2007). Public stigma, or in this case, military stigma, is the reaction of the military toward military personnel with mental illness. Military personnel will self-stigmatize when the military hierarchy depicts military personnel with mental illness negatively. This negative depiction of soldiers who are struggling to cope with the effects of war can shape how a soldier deals with mental illness.

According to Brower (2002), anabolic-androgenic steroids (AAS) are manufactured substances related to muscle mass and male sex hormones (i.e.,testosterone). "Anabolic" refers to muscle-building and "androgenic" refers to increased male hormonal characteristics. "Steroids" refers to the class of drugs. These drugs can be legally prescribed to treat conditions resulting from steroid hormone deficiency, but are often used by those trying to increase muscle-mass (Taylor, 1991). The preclinical, clinical, and anecdotal reports suggest that steroids may contribute to psychiatric dysfunction (Taylor, 1991, Brower,2002). Research shows that abuse of anabolic steroids may lead to aggression and other adverse effects, For example, users report feeling good about themselves while on anabolic steroids, but extreme mood swings can also occur, including manic-like symptoms that could lead to violence. Researchers have also observed that users may suffer from paranoid jealousy, extreme

irritability, delusions, and impaired judgment stemming from feelings of invincibility (Brower, 2002; Taylor, 1991).

To combat the notion of not being physically or mentally fit for an upcoming tour of duty overseas, military personnel are trained to defeat the current enemy through daily combat drills and training classes. Although this training can be helpful for soldiers, in addition to the fear of stigma and its consequences, the idea of possible death and armed combat could be just one of the reasons soldiers choose to misuse alcohol as a way to cope and prepare for a deployment in the Middle East. Atkinson (2004), a military historian, uncovers the preparation of one of these units, the 101St Airborne Division, a unit known within the military culture as the Screaming Eagles. This division is a part of the United States Army and was preparing for their deployment to Baghdad, Iraq.

2.4.3 Access

Another factor that may influence heavy and binge drinking among soldiers in the military is the physical and social availability of alcohol. Alcohol availability is a known risk factor for increased alcohol use in the general population (Gruenewald . 1993). For example, the personnel interviewed in the Navy study reported that alcohol and opportunities for drinking were easily available both in foreign ports (where the minimum legal drinking age usually does not apply) and on Nigerian bases.

On base, beer and spirits are stacked for display at the entry to the post-exchange. Navy underage recruits reported that they had easy access to alcohol in bars, in the barracks, or in hotel rooms near the base. On shore leave in foreign ports, alcohol was reportedly inexpensive, bars were located near the point of disembarkation, few ports had underage drinking laws, and most sailors who wanted to drink organized drinking groups before disembarking.

Research has shown that groups of people who work together, whether in small teams or larger organizations, develop shared beliefs and practices that can influence alcohol use. Workplace culture in the military, just as in other occupations, can be a risk factor for heavy alcohol use. For example, the workplace culture can influence beliefs about acceptable drinking contexts (most notably, drinking rituals with coworkers before, during, or after work); as well as drinking behavior (e.g., number of drinks, openly showing the effects of alcohol, getting into fights, arguing with supervisors, sleeping on the job, coming to work with a hangover) and expectations about the positive or negative consequences of drinking.

Influence of workplace culture on drinking practices in various military settings of the Navy could be a common practice. Face-to-face interviews with young Navy personnel revealed established drinking rituals and routines as well as elements of the work environment that encouraged drinking at work on land bases and during deployment liberties (i.e., shore leave). For example, young sailors viewed drinking with coworkers during the work week as an appropriate coping mechanism in response to stress, boredom, loneliness, and lack of other recreational activities. The respondents described heavy (i.e., five drinks or more for men and four drinks or more for women per typical drinking occasion) and binge drinking behavior after work, and especially drinking on liberty during deployment, as part of a cultural tradition. (Binge drinking was defined in this study as five drinks or more for men and four drinks or more for women within a 2-hour period.)

On deployment liberty, binge drinking and drinking to the point of intoxication were not necessarily viewed as inappropriate or punishable behavior, unless sailors were too intoxicated to return to ship at the designated time. The researchers found that cultural norms for drinking during shore leave3 were significantly associated with frequent heavy

drinking, the number of days on which binge drinking occurred, and the average amount of alcohol consumed daily. (Cultural norms were based on the respondent's perceptions about whether his or her supervisor, friends, or coworkers would disapprove or approve of drinking during shore leave and how many drinks the respondent thought his or her supervisor, friends, or coworkers usually had when they drank.)

2.5 Prohibited/banned drugs

According to NAFDAC (2013) ,the following are prohibited/banned substances in general: psycho-stimulants, psycho-depressants and beta blockers, narcotics ,analgesics, anabolic steroids, peptide and glycoprotein hormones and analogues. Diuretics. Find below detail explanations of the banned substances.

(a) Psycho-stimulants: These groups of drugs include psychomotor stimulants such as caffeine. amphetamines, cocaine and ephedrine. Stimulants are compounds that are adrenaline like in their action. They affect the nervous system, acting upon the sensory areas of the brain. Stimulants enhance alertness, elevate mood, suppress appetite, reduce awareness of fatigue and in large doses cause confusion and hallucinations. Amphetamine, cocaine and caffeine are the most commonly abused stimulants. Caffeine occurs naturally in cocoa, coffee beans and leaves. It is added to soft drinks such as many types of drinks. It is also present in coffee, tea and cola-nuts. Gerald (1981) stated that caffeine affect the central nervous system by affecting the cerebral cortex and medulla oblongata centers. Amphetamines include such drugs as Benzedrine, Dexedrine, Diphetamine, and Methedine, including amphetamines can be legally prescribed for the treatment of narcolepsy. Fatigue and depression, and control of obesity. However, amphetamines are often used with the hope that they could increase physical performance

particularly since the drugs have the capacity to abolish the senses of fatigue and suppress appetite.

Ivy & Kranso (1991) stated that army troops used amphetamines and methamphetamine extensively to combat fatigue and to improve endurance during the World War II. An American college of medicine revealed that 35% of the respondents which included professional and physicians expressed the knowledge of situations in which military personnel used drugs. The findings revealed that the drugs most frequently used were amphetamine derivatives, while the stated purpose for their use was to improve performance.

(c) Psycho-depressants and Beta-blockers: These are depressants of mental activity (which are referred to as downers) sometimes used by athletes for their calming and tranquillizing effects prove useful in tasks where skills, coordination, control and accuracy are paramount, like shooting and archery. These psycho-depressives like valium, Librium, barbiturates, marijuana, nicotine, alcohol, acebutolol and solalol, mask anticipatory excitement or anxiety normally present before competitions such that with steady nerves greater concentration and accuracy can be ensured. The beta blockers like proportional ease anxiety and block the effects of adrenaline, thus reducing sympathetic drive to the heart. Athletes use them to eliminate excessive pounding of the heart during competitions, especially at the anticipatory stages. Mottram (1988) reported that the beta-blockers were banned by the international shooting since the drugs are belived to be of potential use of marksmen in reducing anxiety before competition and thus enhance performance.

(c) Anabolic steroids: Examples include; anabolex, dianobol. anabolin, clostebol stanozole and testerone. It is perhaps the group implicated most. Anabolic drugs help to build up the body and the catabolic drugs which causes rapid breakdown

of the body tissues. People take anabolic steroids to gain body weight. Melvin (1983) stated that anabolic steroids were found to be useful in helping malnourished persons to regain weight during the World War II. It was reported that since that time, anabolic steroids have been promoted as an aid to the development of muscle mass and strength to enhance performances.

(d) Narcotic Analgesics: The drugs in this category relieve pain and disability. Sometimes these powerful painkillers enable a man to exert themselves beyond their normal pain threshold. This effect may pose a health hazard to a competitor who may be tempted to compete in spite of an existing serious injuries and this could result in more permanent injuries. Narcotics include opium and its derivatives such as morphine, heroin, codeine. Morphine is used to relieve extreme pain because of its depressant effects on the central nervous system. Morphine block impulses of the sensory nerves action that carry pain sensation to the brain centre. Apart from being powerful painkillers, codeine and morphine also relax the muscles as a result of which they are often used by long distance runners and cyclists. Narcotics can produce a feeling of being high and this may make somebody to become a threat to others.

(e) Peptide and glycoprotein hormones and analogues: Examples include; hormones human chorionic gonadotrophin, corticotrophin, human growth hormone (HGH somatotrophin) and erythrthropoitein (EPO). These hormones act as messengers from one organ to another to do such things as stimulated growth, influence sex drive, behaviour sensitivity to pain. Analogues are substances that act in a similar way to hormones such as growth hormones (taken in an attempt to increase muscle size and strength).

(1) **Diuretics:**this eliminates fluid from body tissues. It is used for weight reduction, to reduce fluid retention caused by anabolic steroids and to mask excretion of banned drugs. They act by altering the transportation of selected electrolytes or ions. This alteration reduces the reabsorbing of these ions and as a consequence, because the body regulates the concentration of the urine, more water is excreted. Bicarbonate of soda delays the buildup of lactic acid in muscles and by doing this delays fatigue.

2.6 Route of Drug Administration

Drugs can be administered just as in any treatment, either internally or externally based on the types of response expected. The internal administration of drugs may be by inhalation or through the following:

1. Intra-dermally: through the skin
2. Intra-muscularly: through the muscles
3. Intra-nasally: through the nose
4. Intra-venously: through the vein
5. Orally: through the mouth
6. Rectally: through the rectum
7. Intra-spinally: through the spinal cord
8. Sublingually: through the tongue.

2.7 Effect of psychoactive drugs on the Users

According to National Institute on Drug Abuse (2011), 'the initial decision to take drugs is voluntary'. This is so for most drugs like alcohol, and others. But over time, however, drug abuse can cause changes to the brain that erode a person's self-control and ability to make sound decisions, while sending intense impulses to take more drugs. This

is specifically the case with marijuana derived from a plant containing more than 400 chemical constituents. Tetrahydrocannabinol (THC) is the main psychoactive ingredient in marijuana. It binds to cannabinoid (CB) receptors, widely distributed throughout the nervous system, and other parts of the body. In the brain, CB receptors are found in high concentrations in areas that influence pleasure, memory, thought, concentration, sensory and time perception, appetite, pain, and movement coordination. This is why marijuana can have wide ranging effects, including: Impaired short-term memory (memory of recent events) making it hard to learn and retain information, particularly complex tasks; Slowed reaction time and impaired motor coordination, throwing off athletic performance, impairing driving skills, and increasing the risk of injuries; Altered judgment and decision making possibly leading to high-risk sexual behaviors that could lead to the spread of sexually transmitted diseases. Increased heart rate by 20-100% and may increase the risk of heart attack, especially in otherwise vulnerable individuals. Has capability of altering the mood to euphoria, calmness, or in high doses, anxiety, paranoia. Therefore ,it could be said to have effects of causing addiction ,a brain disease because drugs change the brain, in structure and in function (National Institute on Drug Abuse, 2011). Drug addiction is regarded as a chronic, relapsing disease like diabetes, asthma, or heart disease and it can be managed successfully. Treatment helps people to counteract addiction's powerful disruptive effects and regain control of their lives. And just as with other chronic diseases, relapses are not uncommon. But relapse does not signal failure rather, it indicates that treatment should be reinstated or adjusted to help the addict fully recover. The effect on the individual users was summarized by the National Institute on Drug Abuse (2011) as follows:

- **The brain adapts.** In response to the overwhelming surges in dopamine, the brain adjusts by decreasing the number of dopamine receptors available– thus

diminishing the function of the reward circuit. Drug addicts are compelled to abuse drugs to bring their dopamine function back up to normal, requiring ever larger amounts to achieve the initial dopamine high– an effect known as tolerance.

Changes in neurotransmitters other than dopamine. Long-term abuse causes changes in other brain chemical systems, including glutamate, a neurotransmitter that influences the reward circuit and the ability to learn. When the optimal concentration of glutamate is altered by drug abuse, the brain attempts to compensate, which can cause impairment in cognitive function.

Drug abuse can trigger non-conscious memory systems. Conditioning is one example of this type of learning, whereby environmental cues, such as certain people or places, become associated with the drug experience and can trigger uncontrollable cravings if the individual is exposed to these cues, even without the drug itself being available.

Addiction. Brain imaging studies of drug-addicted individuals showed changes in areas of the brain that are critical to judgment, decision-making, learning and memory, and behavior control. These changes are likely what drive an abuser to seek out and take drugs compulsively despite adverse consequences. For example, people who are *dependent* on marijuana frequently have other comorbid mental disorders Population studies reveal an association between cannabis use and increased risk of schizophrenia and, to a lesser extent, depression, and anxiety. There are now sufficient data indicating that marijuana may trigger the onset or relapse of schizophrenia in people predisposed to it, perhaps also intensifying their symptoms (National Institute on Drug Abuse, 2011).

2.8 Effects of psychoactive substances use on service delivery by military personnel

Military personnel are first and foremost expected to perform their task to the best fulfillment of their oath of service. The use of drugs to enhance performance of these task on the short run could be seen as a positive development. In what Stoker (2013) referred to as ‘Creating Supermen: battlefield performance enhancing drugs’ from investigation into the use of performance enhancing drug by USA military men, the report stated that using performance enhancing drugs is a common phenomenon among military men. Stoker reported that the US Air Force pilots' use of amphetamines is one of the most widely documented examples of the use of performance enhancing drugs by military personnel. Often tasked with conducting excessively long missions - some lasting upwards of 20 hours - US Department of Defense scientists began to issue dextroamphetamines - more commonly known as 'Speed', but referred to as 'Go Pills' within the USAF - to its pilots to ensure they remained alert long after tiredness and fatigue should have started to impinge on mental performance. Stoker was of the view that the benefits of such drugs have been rendered ideal but that the side effects, including confusion, delusions, auditory hallucinations, aggression and, in extreme cases, psychotic behaviour, represents a disposition that is hardly ideal for a person in charge of a multimillion-dollar war machine.

Stoker (2013) pointed out that it is best evidenced by an incident in April 2002, in which US pilots became involved in a friendly fire incident over Tarnak Farms, Afghanistan, while under the influence of Dexedrine. Four Canadian soldiers died in the accident. He opined that the Air Force does not hide away from the use of such amphetamines, and has publicly disclosed the prescription of small doses - often 10mg - of Dexedrine if "fatigue could be expected to degrade air crew performance." While the USAF was quick to insist that the use of such medications is voluntary and consent forms

must be signed by pilots, the form also noted that pilots can be grounded if they decline. Pilot groundings, no matter the circumstances, can have serious implications on a pilot's career, potentially leading to a perverse situation where a pilot could almost feel forced to take the drugs.

In the report, it was observed that Man must remain Man and that physical advancements owing to drugs must only go so far, even in extreme circumstances, emphasizing great importance on the notion of "men remaining human even in moments of great crisis." The report alluded to the potential development of drugs that could suppress the fear and inhibition of soldiers, effectively turning them into killing machines capable of acting without both scrutiny and impunity. The point here is that military personnel are generally encouraged officially and unofficially to use drugs.

The irony is that drugs adversely alter their behavior towards the professed tasks assigned and even to their immediate neighbours. According to Gibbs (2006), available data on service delivery among drugs addict in the military paints a picture of inefficiency. Causes and Effects of Drug Addiction. The causes and effects of drug addiction circumscribed both the reasons for a person to start using drugs and the aftermath of becoming addicted. Drug addiction doesn't pose fragility or flawed self-control. The resulting effect on service delivery is usually negative because the establishment would rather be looking for ways of rehabilitating such individual instead of the services expected from him or her.

According to Goure (2013), addiction creates a vicious cycle that undeniably precipitates anomaly in the brain, resulting in potent cravings and involuntary inclination prompting to use more drugs. The accompaniment of such development is the tendencies to resist help and medical intervention which can lead to detrimental drug addiction effects such as health risks and devastations that lead to loss of their family, job, home

and social dynamic. Goure pointed out that addiction has many important negative aspects on the service delivery of the addict. Because the most detrimental cause of addiction is the person's destitution of self-control which is paramount in service delivery.

Goure (2013), opined that the powerful force in addiction is the inability to self-soothe often times an acute mental or physical disability, a negative factor in service delivery in the military. From the experiences of personnel from the Iraq and Afghanistan wars, he was of the view that the concern was no longer about their services but about aggression and violence among the soldiers who were returning from the wars. According to him, for many real drug addicts, using drugs becomes the only outlet for dealing with their emotional and physical problems, stress in the relationship or work, loneliness or depression.

2.9 **THEORETICAL FRAMEWORK**

The Modified Social Stress Model (MSSM) for understanding drug use guided this study (ESCAP, 2000). The model was developed by Rodes and Jason (1988) and modified by the World Health Organization/Programme on Substance Abuse (WHO/PSA) to include the effects of drugs or substances, the personal response of the individual to drugs and additional environmental, social and cultural variables. Research has shown that in order to prevent substance abuse, two things must be taken into consideration: factors that increase the risk of developing the problem must be identified, and ways to reduce the impact of these factors must be developed. This theory maintains that risk factors are those factors that encourage drug use. Factors that make people less likely to abuse drugs are called protective factors. The key to health and healthy families is increasing the protective factors while decreasing the risk factors. According to this model, if many risk factors are present in a person's life, that person is more likely to

begin, intensify and continue the use of drugs. The model identifies risk factors as including: stress (which could be due to the school or home environment, and adolescent developmental changes); the normalization of substance use which could be seen in terms of legality and law enforcement; the availability and cost of drugs; and advertising,sponsorship and promotion through media, as well as the cultural value attached to various drugs. The more protective factors that are present, the less likely a person is to become involved with drugs. Protective factors are identified as: attachments to people such as family members and peers, and institutions such as religion and school; physical and performance capabilities that help people succeed in life; the availability of resources, within the person or the environment, that help people meet their emotional and physical needs; positive role models; and anti-drug campaigns along with guidance and counseling services. According to this model, it is easier to understand the drug problem if risk and protective factors are considered at the same time. Probability of drug abuse is determined by these factors and this framework is useful as a way of planning interventions to prevent or treat problems related to drugs. It is important to note that the factors listed above are not exhaustive. The presence of risk and protective factors is context dependent and the proportions of their contribution depend on their intensity in given situations.

2.10 Summary

How do we meet the call to serve? It has been done through the continual deployment of our men and women in uniform to places in war where seeing fighting, killing, death and poverty all around them can occur daily during their deployment. All military personnel who have deployed in support of the wars are expected to function at their highest possible capacity. It is a fact that after military personnel returns home from

the conflicts in war, they are faced with the past events of what occurred during their time in the war. As the traumatic memories of war unfold in the military personnel's mind, they may seek mental health services but also quickly learn the implications of seeking these services for their aspirations to stay enlisted in the armed forces. Some military personnel can quickly learn that by misusing alcohol as a way to numb the pain of their deployment will not only help them to appear ready to redeploy, but will prevent them from being ostracized or possibly discharged for seeking mental health services. Excessive drinking and illicit drug use can impact military personnel's ability to perform their duties proficiently, and if a soldier is unable to perform the task that they have been trained to execute while overseas, this can impact their current enlistment and possibly cause them to be discharged from the armed forces. The use of alcohol as a way to mask the effects of mental illness does not, ultimately, solve the issue.

Pharmacologically, drugs are generally grouped into a variety of categories. These include: stimulants, depressants, psychedelics, and narcotics.It was also reviewed that, stress, inactivity, and access are reasons for using drugs among the military.

According to NAFDAC (2013) ,the following are prohibited/banned substances in general: psycho-stimulants, psycho-depressants and beta blockers, narcotics analgesics, anabolic steroids, peptide and glycoprotein hormones and analogues. Diuretics. Drugs can be administered just as in any treatment, either internally or externally based on the types of response expected. According to National Institute on Drug Abuse (2011), 'the initial decision to take drugs is voluntary'. This is so for most drugs like alcohol, and others. But over time, however, drug abuse can cause changes to the brain that erode a person's self-control and ability to make sound decisions, while sending intense impulses to take more drugs. Military personnel are first and foremost expected to perform their

task to the best fulfillment of their oath of service. The use of drugs for enhance performance of these task on the short run could be seen as a positive development.

CHAPTER THREE

RESEARCH METHODOLOGY

1.1 Introduction

The purpose of this study was to asses substance use among military personnel in Kaduna. State To achieve this purpose, the research design, population, sample and sampling technique, instrumentation, validation, administration of the instrument, and statistical techniques used in this study are described below.

3.1 Research Design

Ex – post-facto research design was considered suitable for this study since there was no manipulation of information from the respondents. Razaq, & Ajayi (2000), explained that ex-post-facto is undertaken after the events have taken place and the data are already in existence. In ex-post-facto research design it is difficult to manipulate independent variables because data are already in existence.

3.2 Population

The population of this study comprised of all military personnel in the different formations in Kaduna State. They comprised of the Army, the Air Force and Navy of different units with the different formations. The total population which excluded the military schools like the Nigeria Defense Academy, Nigeria Military School is estimated at 6600. For the purpose of this study, a representative fraction of the population was used. The estimated population of the formations is presented in Table 3.1.

Table 3.1:P**opulation of military personnel residing in Barracks**

Barracks	Location	Population
CHINDICT Deport	Zaria	2000
DAPT	Kaduna	2000
JAJI Cantonment	Jaji	1100
Military Police	Basawa	300
Nigerian Air Force	Kaduna	200
Nigerian Military School	Zaria	1000
Total		6600

3.3 Sample and Sampling Technique

A sample size of 660 was used for the study, this is in accordance with the statement of Nwana (2005) who stated that for a population of less than 10,000, 10 percent is adequate for generalization. Therefore for a population of 6600, 660 was taken. Proportionate sampling technique was used to draw out respondents from the various barracks.

To select the representative sample of the personnel for this study, the stratified proportionate random sampling technique was employed. This was basically because the formations were not equal in terms of the number of personnel within them and the fact that their numbers were large. A total of 6 military barracks within the state were selected for the study.

The personnel were selected using the simple random selection procedure using a proportional administration of assigning the number of questionnaires based on the

population size of each selected barrack in line with Krejcie and Morgan (1970). The selected sample size for the respective barracks are presented in Table 3.2.

Table 3.2:**List of Barracks and the sampled Population selected for the study**

Barracks	Estimated population	Sample size
CHINDICT Deport	2000	200
DAPT	2000	200
JAJI Cantonment	1100	110
Military Police	300	30
Nigerian Air Force	200	20
Nigerian Military School	1000	100
Total	6600	660

In each of the selected barracks, sample size was drawn according to the size of the population as indicated in Table 3.2. The table showed that the selected sample size is approximately 10.0% of the estimated population of the military personnel in the six formations involved in the study.

3.4. Research Instrument

Data was collected using structured questionnaire adopted from a similar study Akosu, (2007). The questionnaire consisted of six sections, A, B,C,D, E and F with a total of 40 items. Section A solicited for the demographic variables of the personnel. Section B consisted of ten (10) items on frequently used drugs by the military personnel. Section C contained six (6) items on sources where military personnel obtain their drugs. Section D contained ten (10) items on reasons for use of identified psychoactive substances. Section

E consisted of ten (10) items on the effect of drug use by the military, and lastly, section F contained ten (10) items on the effect of drug use on service delivery in the military.

3.5 Validation

To ascertain the face validity of the questionnaire, the prepared questionnaire was distributed to four experts within and outside the Department of Physical and Health Education, Ahmadu Bello University Zaria. They served as jurors for vetting and ascertaining the face validity of the instrument. The corrections were implemented and a final copy was produced and used for data collection.

3.6 Administration of Instrument

Eligible respondents were given explanations concerning the study and how the questionnaire was to be filled by the respondents. This was necessary to obtain the consent to participate. The questionnaire was then distributed by the researcher and six trained research assistants to consenting personnel. A total of 660 questionnaire were distributed. The researcher with his research assistant visited each of randomly selected barracks on a scheduled date. At the barracks visited, questionnaire was administered to each of the soldiers as explained, for completion and retrieved after the completion.it took the researcher 4weeks to collect the data.

3.7 Statistical Techniques

As the primary purpose of this study was to assess substance use among military personnel in Kaduna State, descriptive statistics and inferential statistics were used. Frequencies and percentages were used to describe the demographic characteristics of the subjects. Mean and standard deviations were used to answer the research questions. The hypotheses were tested with inferential statistics. Specifically, One sample t-test was used

for the major hypothesis along with the sub-hypotheses. All the hypotheses were tested at the 95% confidence interval (P = 0.05).A constant mean of 2,5 was used to ascertain the agreement or non-agreement of the respondents to the questionnaire items.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION

4.1 Introduction

In the Assessment of substance use among military personnel in Kaduna State, 660 questionnaire were distributed and 644 were retrieved, the data collected were statistically analyzed in this chapter. The first section described the demographic characteristics of the military personnel who were involved in the study. This section was presented in frequencies and percentages in a single table. The other sections where the variables relating to substance use were assessed were presented along the research questions in means and standard deviations. Decisions on items cum variables were based on agreement signified by the magnitude of the mean score for the respective item or variable. The mean score for the highest level of disagreement was 2.4, based on the four point scale used in the study. A higher mean of 2.5 and above would therefore constitute agreement on the scale. The study's hypotheses and discussions of the findings from the analyzed data were presented in the last two sections of the chapter.

4.2: Results and Data Analysis

A total of six hundred and forty four military personnel including the Army and Air Force within the six military formations in the state were involved in the study. Their

demographic characteristics selected in association with the expressed opinions on the use of the drugs were age, sex, highest educational attainment and their marital statuses. In

Table 4.2.1,.

Table 4.2.1: Distribution of the Respondents by their Demographic Characteristics

Variables	Variable options	Frequency	Percent
	Below 25	206	32.0
	26-35	214	33.2
	36-45	144	22.4
	Above 45	80	12.4
Age in years	Total	644	100
	Male	456	70.8
	Female	188	29.2
Sex	Total	644	100
	SSCE	439	68.2
	Diploma	117	18.1
Highest Educational	Degree	88	13.7
attainment	Total	644	100
	Single	476	73.9
	Married	166	25.8
	Others	2	0.3
Marital status	Total	644	100

The table revealed that the selected personnel could be said to be a good representation of the military in the state. Those who were below 25years of age were 206 (32.0%) of the total respondents. Personnel who were between 26 and 35years were 214 (33.2%) while 144 (22.4%) were between 36 and 45years. Only 80 (12.4%) of the respondents were

above 45years. This relatively lower ages of the personnel is partly attributable to the fact that most military formations in the state are training basis.

From the table, 456 (70.8%) of the personnel were male while 188 were female. This structure is proportional to the actual gender population where the number of female personnel were found to be relatively small compared to their male counterparts. Another fact is the gender associated with the training orientation of the formations. Most 476 (73.9%) of the personnel were single and 166 (25.8%) were married. Only 2 (0.3%) of the personnel indicated that they did not belong to these two major marital classifications. In terms of educational qualification, 439 (68.2%) were with the Senior Secondary School Certificates while those with Diplomas were 117 (18.1%). But 88 (13.7%) of them had university degrees. This means that the personnel could be said to be educated enough to understand the implication of substance use and therefore provide valid information required for this assessment.

4.2.2 Assessment of substances used by Military personnel

Some of the variables selected for investigation in relation to the use of substances by Military personnel were Types of substances used, sources of such substances, reasons for use of the substances, effect of use of such substances on the personnel and on their service delivery in the military service. A summary of the opinions of the personnel in means, standard deviations and standard errors are presented in Table 4.2.2 An individual analysis of the variables was undertaken in relation to the respective objectives and research questions of the study in further details.

Table 4.2.2: Mean scores and standard deviations on the investigated variables of substances use by military personnel.

Variables	Mean	Standard Deviation	Standard. Error

Sources of substances	2.5318	0.45573	0.01796
Types of substances	2.5387	0.36437	0.01436
Reasons for substance use	2.9725	0.37488	0.01477
Effect of use of substances on personnel	3.1531	.043431	0.01711
Effect of use of substance on service delivery	3.2874	0.44209	0.01742

The scores in the table revealed that there were major substances that were used by the personnel as indicated by mean score of 2.5387 as against the fixed mean of 2.5. The sources for such substances are clearly identifiable along with the reasons for their uses. However, the use of these substances have effect on the personnel as well as their service delivery as indicated by the mean scores in the table. The constituent items in each of these variables were assessed along the respective objective and research question below.

Assessment of sources of substance used by Military personnel

Among the specific objectives of the study was the identification of sources of the substances used by the military personnel. This objective was investigated with the second research question of the study. The mean scores by the military personnel on the different sources for such substances are scored in Table 4.3 below

Table 4.2.3: Mean scores on sources of substances used by the military personnel

Sn	Sources of substances used by military personnel	Mean	S. D
1	Through Medical Doctor	2.19	1.281
2	Patent medicine store	2.95	1.018
3	Pharmacy shop	3.03	0.965
4	Drug hawkers	2.65	1.002
5	Parents' safes	1.34	0.731
6	Friends	3.04	0.965
	Aggregate mean score	**2.53**	**0.456**

The major sources of substances used by the personnel were mostly through friends, pharmaceutical shops, Patent medicine store and Drug hawkers. These four sources constituted the most patronized sources of psychoactive substances by the military personnel in the state. Though other sources like Through Medical Doctor and Parents consignment were indicated, they were not major sources of such substances. From the mean score of 2.53 for the aggregate variable, it could be said that the use of psychoactive substances are attributable to the sources where such drugs are obtained. The significance of these sources were however investigated in the related hypothesis of the study.

Assessment of substance types used by Military personnel

The first specific objective of this study was to find out whether the use psychoactive substances affect the military personnel service delivery in Kaduna State. Towards the attainment of this objective, a numbers of items selected were scored by the personnel. The mean and standard deviation for the items on the types of psychoactive substances used by the personnel are indicated in Table 4.2.4 below:

Table 4.2:4 Mean scores on types of substances used by the military personnel

Sn	Types of substances used by military personnel	Mean	Std. Deviation
1	Alcohol	3.55	.683
2	Cigarettes (Tobacco)	2.38	1.127
3	Solution	1.67	.644
4	Marijuana	3.55	.648
5	Valium, Aspirin, Panadol	2.35	1.076
6	Cocaine	1.91	.768
7	Amphetamine	1.91	.767
8	Heroin	1.92	.785
9	Caffeine overdose	3.01	.998
10	Stimulants substance use prescribed by Doctors	3.15	.946
	Aggregate mean score	**2.5387**	**.36437**

From the scores in the table, the commonest psychoactive substances used by the personnel in their order of hierarchy were alcohol and marijuana which most respondents agreed with a mean score of 3.55 for each respectively. Next in line were stimulants

substances prescribed by Doctors and Caffeine overdose. These were scored with mean of 3.15 and 3.01 respectively by the respondents. Cigarettes (Tobacco) and Valium, Aspirin, Panadol which generally are used for pain relief were next with mean scores of 2.38 and 2.35 respectively by the personnel. Other psychoactive substances like Cocaine, Amphetamine, Heroin and solution were not commonly used by the personnel. In the overall assessment, it could be said that the military personnel have different types of psychoactive substances which they use in their different formations in the state.

Assessment of reasons for substance used by Military personnel

The assessment of the reasons for the psychoactive substances use by the military personnel is the focus of the third specific objective and research question of the study. To provide a solution to the research question, the responses of the military personnel were assessed on a number of items which were scored in means and standard deviations below

Table 4.2.5: Mean scores on reasons for use of substances by the military personnel

Sn	Reasons for substance use by military personnel	Mean	S. D
	I use substance to get fame/recognition and desire to belong to a group influences	1.48	0.856
2	I take substances like alcohol and others intoxicants for relaxation	1.59	0.958
3	I take substance to cope with stress in the daily activities	1.80	1.057
4	I use substance to increase my mental alertness	1.38	0.746
5	I use substance to enhance my physical ability when am under pressure to increase performance and succeed	1.36	0.690
6	If I do not take substance, I generally do not feel comfortable	1.44	0.854
7	There is a general perception among military personnel that substance use generally enhances performances	3.49	0.737
8	Substance use help personnel recover from a hard workout more quickly	2.85	1.077
9	Substance use help personnel to avoid depression and any form of prolong anxiety	3.58	0.625
10	Substance use that are stimulants helps personnel to eliminate or hide tiredness	3.17	0.922
	Aggregate mean score	**2.97**	**0.375**

In the table above, the personnel did not seem to accept a direct responsibility for any of the suggested reasons. But they however agreed that there is a general perception among military personnel that substance use generally enhances performances. The mean score

for this item was 3.49 in the table. They also agreed that substance use help personnel to avoid depression and any form of prolong anxiety as well as helps personnel to eliminate tiredness. The items used for these suggestions were scored 3.58 and 3.17 respectively. It was the consensus of respondents that Substance use helps personnel recover from a hard workout more quickly. Though most respondents did not admit personally the use of any substances attributable to any reasons but the response to indirect questions relating to the use of such drugs tend to expose such denials. From the mean score of 2.97 for the variable, it could be said that the use of psychoactive substances by the military is associated to some factors which most of them generally agreed are cogent for the use of such drug.

Assessment of effects of substance use on individual Military personnel

The focus of the fourth objective and research question was the assessment of effects of the psychoactive substance use on the individual users. These included the physical, mental and psychological wellbeing of the individual. The responses of the military personnel on the items used for the assessment were scored in mean and standard deviation in Table 4.5.

Table 4.2.6: Mean scores on personal effect of substance use on the military personnel

Sn	Personal effect of substance use on military personnel	Mean	S. D
1.	Drug use leads to cardiovascular diseases like breathing problems and heart failure (heart attack)	3.15	.922
2.	Drug use leads to careless attitude towards things and can easily leads to negligence on duty by personnel	2.63	1.070
3.	Drug use causes physical pains such as Joint aches, restlessness and impaired vision	3.38	.791
4.	Sometimes,some tasks assigned are neglected because of substance use	3.05	.899
5	Drug use sometimes lead to disregards of social norms/authority	2.99	.983
6	The public generally have disrespect for drug addict	2.99	1.012
7	Personnel who use substances are easily distinguished from those who do not	3.74	.559
8	Drug use has negative effect on the mental health of personnel and sometimes leads to termination of such personnel	3.36	.848
9	Personnel use were habitual drug users often have problems with their family	3.21	1.016
10	Habitual drug use by military personnel makes them to be disrespected among their peers	3.03	.960
	Aggregate mean score	**3.15**	**0.434**

The construct generally captured all the excesses of drug use as indicated with the mean scores of the military personnel for the respective items in the table. The respondents could not be said to be ignorant of the adverse effect on the individual users of such psychoactive substances. Such adverse effect ranges from acknowledged cardiovascular diseases like breathing problems and heart failure (heart attack), physical pains such as Joint aches, restlessness and impaired vision and mental disability.

In terms of commitment and efficiency at work, the respondents were of the view that the negative effect of psychoactive substances use could extend to negligence of duty by such personnel arising from physical disability such as impaired vision and general restlessness. These could sometimes lead to disregards of social norms/authority and problems with their families.At the peer level, such users tended to be disrespected by the general public as scored by the respondents in the table. They were of the view that the public generally have disrespect for drug addict and that Personnel who use drugs are

easily distinguished from those who do not. As a result they were of the opinion that Habitual drug use by military personnel makes them to be disrespected among their peers. From the aggregate mean score of 3.15 for the table, it is clearly indicated that the use of psychoactive substance have negative effect of their users among the military personnel in the state.

Effects of psychoactive substances on service delivery by the Military personnel

The fifth objective and research question of the study were the assessment of effects of psychoactive substances on the service delivery by military personnel in the state. Apart from the effect of the psychoactive substances use on the individual, it was observed that the services rendered in the respective military formation was also affected as indicated in the mean scores for the selected items used for the assessment in Table 4.2.7 below

Table 4.2.7: Mean scores on effect of personnel drug use on their service delivery

Sn	Effect of substance use on service delivery by military personnel	Mean	SD
1	Some personnel use are habitual drug users are regularly punished for reporting to work late	3.23	0.948
2	The superiors disapprove personnel whose work efficiency is affected by their drug use and this affect their promotion	3.67	0.680
3	Personnel who are habitual drug users sometimes abandoning duty post to take some stimulants	3.12	0.985
4	Personnel who use substance use prefer to associate with friends who are taking the same things like themselves even if their performance at work is bad	3.39	0.847
5	Some personnel are regularly reported intelligence unit to their superiors	3.40	0.908
6	Most habitual drug users find assignment very difficult most of the time because the tasks are always above their mental ability	3.60	0.650
7	Personnel who are habitual drug users are always very sad at times to do their assignment in the army and in other places where a task is given to them	3.12	0.914
8	Personnel who are drug users sometimes default in the execution of tasks assigned to them by their superior in the military	3.28	0.846
9	Personnel who are habitual drug users sometimes feel physically unwell after the use of substance use	2.85	1.037
10	Substance use have adverse effect on my performance	3.22	0.917
	Aggregate mean score	**3.29**	

0.442l

The mean scores for the items in the table clearly demonstrated the negative impact the use of psychoactive substances could have on the service delivery of such users. For example, the respondents were unanimous on the suggestion that some of the personnel that are known to be habitual drug users were regularly punished for reporting to work late. This is clearly a negation of good service delivery by such personnel. In the same vein, the respondents agreed that their superiors disapprove of personnel whose work efficiency is affected by their drug use and that the development usually affects the promotion of such users. In terms of efficient service delivery, the use and abuse of psychoactive substance could not be said to be having acceptable merits among the personnel as epitomized by the mean score for item 3 where the respondents generally agreed that habitual drug users sometimes abandon duty post to take some stimulants.

From the mean scores in the table, the respondents generally agreed that most habitual drug users find assignment very difficult most of the time because the tasks are always above their mental ability. This may not necessarily be intellectual deficiency but the resulting impairment to physiological dispositions orchestrated by the use of such substances. The respondents were also of the view that service delivery of such personnel is affected by their sad disposition. In the seventh item of the table, they agreed that Personnel who are habitual drug users are always very sad and that it affects their assignment in the army and in other places where a task was given to them because they sometimes default in the execution of tasks assigned to them by their superior in the military. From the aggregate mean score of 3.29, it could be said that the respondents

were of the view that the use of psychoactive substances have negative effects on their service delivery in the military.

4.9 **Test of hypotheses**

In pursuance of the objectives of the study and to provide statistical solutions to the question raised, one major null hypothesis with four null sub-hypotheses were formulated for testing the validity of the answers. The major hypothesis was:

Major Hypothesis: Substance use and abuse does not significantly influence service delivery by the military personnel in Kaduna State.

This hypothesis was tested with the one sample t-test to establish the significance of the influence of drug use on the service delivery by the military personnel in the state. The fixed mean (2.50) for agreement was compared with the observed mean to establish the influence. The point was that agreement of influence would indicate amean higher than 2.50 and would be significant at the fixed probability level while disagreement would indicate a mean lower than 2.50 which implied no significant influence. The summary of the test is presented in Table 4.2.8

Table 4.2.8: Influence of substance use on service delivery by military personnel in Kaduna state.

Variables	Mean	Std. Deviation	Std. Error	t-value	DF	P	t-critical
Influence of drug use on service delivery	2.97	0.375	0.015	2.875	643	0.000	1.96
Fixed mean	2.50	0.000	0.000				

t-critical(643) = 1.96, (P < 0.05)

The result in the table revealed that substances use significantly influenced the service delivery of the military personnel. The observed t-value for the test was 2.875 at 643 degree of freedom and the probability level of significance observed in the test was 0.000 ($P < 0.05$). The critical t-value at 643 degree of freedom was 1.96. This means that, the personnel were of the view that drug use have effect on the service delivery of the military personnel. With these observations, there was no evidence to retain the null hypothesis. This means that the null hypothesis that psychoactive **s**ubstance use by the military personnel do not significantly affect their service delivery in Kaduna State was therefore rejected.

Sub-hypothesis I: Psychoactive substances are not significantly used by the military personnel in Kaduna State.

This hypothesis was tested with the one sample t-test. The test value used was 2.50. This value (2.50) indicated significance of the substance type while lower value of 2.40 downward indicated no significance of such substance. The point here was that if the military personnel are in agreement that there are some psychoactive substances used and abused, their mean score should exceed 2.40 on the four point scale. The reverse was expected to be the case where they disagreed with the notion. In Table 4.2.9, the aggregate mean score for the types of drugs use were compared with the fixed mean score with the aid of the one sample t-test procedure.

Table 4.2.9: One sample t-test on knowledge of type of substances used among military personnel

Variables	Mean	Std. Deviation	Std. Error Mean	t-value	DF	P	t-critical
Substance types	2.54	0.364	0.014	2.693	643	.007	1.96
Fixed mean	2.50	0.000	0.000				

t-critical(643) = 1.96, ($P < 0.05$)

The test revealed that there were significant psychoactive substances that were most frequently used by the military personnel in Kaduna State ($P < 0.05$). The observed mean score for the type of substances used by the military was higher than the fixed mean score of 2.50 in the test. The observed t-value (2.693) was higher than the critical value of 1.96 and the observed level of significance was 0.007 ($P < 0.05$). This means that the null hypothesis that there was significantly no psychoactive substances that are most frequently used by the military personnel in Kaduna State could therefore be rejected.

Sub-Hypothesis II: There are no significant sources for obtaining psychoactive substances by military personnel in Kaduna State.

This hypothesis was tested with the scores in Table 4.4 where the sources of the psychoactive substances available for use by the personnel were assessed. The one sample t-test was used in the test of the hypothesis as summarized in Table 4.9.

Table 4.2.10: One sample t-test on sources of psychoactive substances used by military personnel in Kaduna state.

Variables	Mean	Std. Deviation	Std. Error Mean	t-value	DF	P	t-critical
Substance sources	2.53	0.456	0.018	1.973	643	0.054	1.96
Fixed means	2.50						

t-critical(643) = 1.96, (P = 0.05)

The result in the table revealed that in the opinion of the military personnel, the sources of the psychoactive substances could be said to be statistically significant ($P < 0.05$). The observed t-value (1.973) for the test was higher than the critical value of 1.96 and the observed level of significance was 0.054. This means that the null hypothesis that there were significantly no identified sources where military personnel obtain psychoactive substances in Kaduna State could therefore be rejected.

Sub-hypothesis III: There are no significant reasons for use of psychoactive substances by the military personnel in Kaduna State.

The significance of the reasons for the use of psychoactive substances was tested here with the one sample t-test. The summary of the test is shown in Table 4.10.

Table 4.2.11: One sample t-test on reasons for substance use among military personnel in Kaduna state.

Variables	Mean	Std. Deviation	Std. Error	t-value	DF	P	t-critical
Reasons for use of psychoactive substance	2.97	0.375	0.015	31.987	643	0.000	1.96
Fixed means	2.5000						

t-critical(643) = 1.96, (P < 0.05)

From the result in the table, reasons for the use of psychoactive substances by the military personnel are statistically significant by their expressed opinions. This is because the aggregate mean score (2.97) used for the test is significantly higher than the fixed mean score of 2.50. The observed t-value (31.897) is higher than the critical value of 1.96. The level of significance observed for the test is 0.000 (P < 0.05). By these observations from the test, the null hypothesis that there are significantly no identified reasons for use of psychoactive substances by the military personnel in Kaduna State could therefore rejected.

Sub-Hypothesis IV: Psychoactive substances have no significant effects on the military personnel in Kaduna State

This hypothesis was tested by comparing the aggregate mean score of the respondents on the effects of substance use on the individual users as examined in Table 4.2.7 The hypothesis's test was conducted with the one sample t-test to determine whether the

military personnel were of the opinion that such effect on the users are significant or not. The mean score for the variable was compared with 2.50 which stand for the least score for agreement in the test.

Table 4.2.12: One sample t-test on effects of substances on military personnel in Kaduna state

Variables	Mean	Std. Deviation	Std. Error	t-value	DF	P	t-critical
Personal effect of Substance use	3.15	0.434	0.017	38.162	643	.000	1.96
Fixed means	250						

t-critical(643) = 1.96, (P < 0.05)

In the table, the observed t-value was 38.162 while the critical value of t was 1.96. The observed level of significance for the test is 0.000 (P < 0.05). The mean score was 3.15. Going by the observed t-value and the level of significance in the table, the mean score is significantly higher than the fixed mean of 3.50. Thus indicating that in the opinion of the military personnel, the effect of Substance use on the individual user was adversely and statistically significant. The null hypothesis that the psychoactive substances have no significant effects on the military personnel in Kaduna State could therefore be rejected.

4.10**: Discussions**

From the analysis of the data collected for this study, it was observed that the use of psychoactive substances by military personnel, was a phenomenon which the individuals involved hardly admit. In the assessment of the variables (types of substances, sources of substances, reasons for substance use, effect of use on individual users and effect of use on service delivery) in relation to the research objectives and questions, it was observed that certain psychoactive substances were commonly used and that their

sources varies. Some reasons adduced for their use along with their effect on the individual users as well as on their service delivery were observed.

In the test of the major hypothesis, it was observed that psychoactive substances use significantly influence the concerned personnel's service delivery in the military formations in the state. The test was conducted with the Pearson Product moment correlation procedure. The result revealed that use of psychoactive substances significantly influence service delivery by military personnel in the formation within the state. The major hypothesis was therefore rejected. Among other observation relating to the rejection of this hypothesis was that use of psychoactive substances tended to have adverse impact on the physical and mental wellbeing of the users which in turn make it difficult for those who have become habitual users to effectively carry out their task punctually and efficiently. In the assessment, it was observed that personnel who become addicted could leave their duty post in pursuit of such psychoactive substances. The finding here agrees with Baker, Heppner, Afari, Nunnink, Kilmer, Simmons, Harder, & Bosse (2009). Jakupcak, Tull, McDermott, Kaysen, Hunt, & Simpson (2010) who respectively reported that the use of psychoactive substances greatly reduces the combat readiness of habitual users among military personnel who instead of facing the task of the war are rather restricted to the mental hospitals and places where psychiatric administration is being given to them because a mental illness diagnoses puts the military personnel at risk for not being able to deploy again. There is an incentive for military personnel to. not present as having a mental illnesses that is related to a previous deployment overseas..

Sub-hypothesis I tested the significance of the types of psychoactive substances used by the military personnel. The test revealed that there were substances that were significantly used by the respondents. The null hypothesis was therefore rejected. From

the discussions of the related items in response to the research question, Alcohol and marijuana were observed to be rated as the most commonly used by the military personnel. Other substances commonly used by the personnel were stimulants substances prescribed by Doctors and Caffeine overdose. The latter is often from beverage drinks; cola nut and Tobacco which the respondents agreed were commonly in use. But the respondents did not agree that psychoactive substances like Cocaine, Amphetamine, Heroin and solution were commonly used by the personnel.

The significance of the sources of the psychoactive substances used by the military personnel was tested in sub-hypothesis II. The result revealed that the sources of the substances were statistically significant. This null hypothesis was therefore rejected. In the discussion and assessment of the related items in providing solution to the research question, it was observed that most users usually acquire such substances through their friends and some through pharmaceutical outlet. Other significant sources included drug hawkers, and patent medicine stores among others. The combinations of these sources led to the significance in the test. This finding agrees with a report by Ames (2004) from a study of the influence of workplace culture on drinking practices in various military settings of the Navy. From the Face-to-face interviews with young Navy personnel, it was revealed that established that there was drinking rituals and routines as well as elements of the work environment that encouraged drinking at work on land bases and during deployment liberties; that young sailors viewed drinking with coworkers during the work week as an appropriate coping mechanism in response to stress, boredom, loneliness, and lack of other recreational activities. The respondents described heavy drinking behavior after work, and especially drinking on liberty during deployment, as part of a cultural tradition, drinking to the point of intoxication were not necessarily viewed as inappropriate or punishable behavior, unless sailors were too intoxicated to return to ship

at the designated time. The report stated that cultural norms for drinking during shore leave were significantly associated with frequent heavy drinking.

In the test of sub-hypothesis III, reasons for the use of psychoactive substances by the personnel was tested. The result of the test which was conducted with the one sample t-test procedure revealed that the respondents were of the opinion that there were significant reasons for the use of psychoactive substances by the personnel in the state. The null hypothesis was therefore rejected. From the analysis of the related items in their assessment towards providing the answer to the related research question, it was observed that though they did not tend to admit personal reasons for such use but they did agree that there is a generally perception among military personnel that psychoactive substances use generally enhances performances. Among others, they agreed that substances use help personnel to avoid depression and any form of prolong anxiety as well as helps personnel to eliminate tiredness. The finding here agree with Davidson & Weale (1996), where it was revealed that drugs were administered to soldiers during the Second World War to reduce fatigue. In line with this finding of this study, Mottram (1999), stated that ancient soldiers used stimulants to enhance their physical performance, describing the use of caffeine and alcohol by soldiers between the middle of the nineteenth century and advent of the Second World War. The author concluded that the development of amphetamine stimulants drugs reached its peak around the time of the Second World War, when drugs were administered on combat troops to enhance their mental awareness and delay the onset of fatigue. The finding agrees with the report of Nwankwo (2000), where it was stated that ‘as peace-keeping mission became popular, manufacturers of drugs started to produce highly potent drugs often with dangerous side effects, to improve performances’. However, this use of drugs to increase performance is always overdone (Hoge, 2007). The finding is consistent with the postulation of Kim et al. (2010), who stated that combat

exposure becomes embedded within the memories of our women and men in uniform, and alcohol misuse is often a response to traumatic memories which come from the various forms of combat exposure (killing, fighting, death, injury and others) that they experienced while being deployed.

Sub-hypothesis four tested the significance of the adverse effect of psychoactive substances use on the individual personnel. The result of the test revealed that the respondents viewed such effect as statistically significant. The null hypothesis was therefore rejected. From the assessment in line with the focus of the fourth objective and research question, it was observed that such adverse effect on the individual users were perceived to include cardiovascular diseases like breathing problems and heart failure (heart attack), physical pains such as Joint aches, restlessness and impaired vision and mental disability and adverse effect included restlessness. At the psychological level, such individual often earns disrespect among their peers and among their families. These negative effects sometimes culminate in some forms of disciplinary measures such as delayed promotion and physical punishment depending on the gravity of the offense. This finding is constituent with Taylor, (1991); Pope, (1988); Pope, (2000) and Brower (2002) where it was reported respectively that preclinical, clinical, and anecdotal reports suggest that steroids may contribute to psychiatric dysfunction and that use of anabolic steroids may lead to aggression and other adverse effects. It was pointed out in the report that though feeling good about themselves while on anabolic steroids ,it results in extreme mood swings, including manic-like symptoms that could lead to violence. Among others it was observed that users may suffer from paranoid jealousy, extreme irritability, delusions, and impaired judgment stemming from feelings of invincibility.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The summary of assessment of the use of psychoactive substances by military personnel in Kaduna State along with the conclusion and recommendation on the subject were presented in this chapter. Among others, the chapter consisted of the recommendation for further studies on the subject.

5.2 Summary

Though there is no absolute bad and absolute goodness in any drug but there is no known drug that is not harmful or even poisonous at high dosages. Drugs are known to have the potency of affecting changes in the perception, feelings and behavior of living organisms. The kind and extent of these changes depend on the nature of the ingested substances, the amount present in the body at any point in time and sometimes the route and speed of administration. The effect of such drugs are said to depend on the physiological characteristics and current physiological state of the individual, the physical and social setting when the substance is ingested, the reasons for it and the changes the substance is expected to effect in the individual. Therefore, drug usages are expected to be controlled by professional medical personnel. Sadly global effort at drug control has not been effective. Of more paramount is the use of social drugs referred to as recreational drugs which have become a problem among military personnel in Nigeria of which formations in Kaduna State are part. Reasons why those in the military engage in drugs, is one that is yet to be thoroughly examined. With the upsurge in military crimes, it becomes imperative to identify how the use of drugs aids such criminal tendencies. This

study therefore, sought to make an assessment of substance use among military personnel in Kaduna state.

The assessment was carried out with the aid of a structured questionnaire, designed by the researcher. The questionnaire was partitioned into six sections. The first section consisted of the demographic characteristics of the military personnel. In the remaining five sections, the types of use by the personnel, the effect of the drugs on the individual and on their service delivery were assessed. The sections were assessed on a four point scale. The constructed questionnaire was validated and then administered to some selected military personnel in five formations within the state through a proportionate sampling procedure. In all, 644 personnel were involved in the study.

The study was structured into five chapters. Chapter one gave the background of the study, statement of the problem, the objectives, research questions, and the study's hypotheses. The scope and limitation of the study were also given within the chapter. Chapter two consisted of the review of the related literature to the study. In chapter three, the methodologies used for the study were highlighted. The statistical analysis and interpretation of the findings from the analyzed data were presented in chapter four. The chapter was made up of an analysis of the respondents' demographic variables, and their opinions on the investigated variables in relation to the use of psychoactive substances. One major hypothesis and four sub-hypotheses were tested in the study.

The major findings from the analysis of the data and test of the study's hypotheses were summarized asfollows:

1. There are significant sources for the psychoactive substances used by military personnel in Kaduna state. Such sources included friends, pharmaceutical outlets, drug patent stores and drug hawkers.

2. There are psychoactive substances that are commonly used by military personnel in Kaduna State. Such substances included among others Alcohol and marijuana.
3. Military personnel take psychoactive substances for some of the assumed following reasons:

   -the general perception among military personnel that substance use generally enhances performances,

   -they help personnel recover from a hard workout more quickly,

   -they help personnel to avoid depression and any form of prolonged anxiety,

   -that stimulants help personnel to eliminate tiredness.

4 The use of psychoactive substances has significant adverse effect on the physical wellbeing of the individual users. Such effect includes cardiovascular diseases, physical pains, restlessness, impaired vision and mental disability. Others were psychological in nature. Those include disrespect among their peers and among their families. The economic effects arising from the accompanied disciplinary measures include delayed promotion and others.

5 The use of psychoactive substances negatively contributes to the service delivery of the concerned users.

5.3 Conclusion

From the findings of this assessment of the use of psychoactive substances among military personnel in Kaduna State, The following conclusions are made:-

1. Certain psychoactive substances were commonly used by military personnel. The most commonly used psychoactive substances are alcohol,

and marijuana. Other psychoactive substances were used but not as common as the two mentioned.

2. The sources of psychoactive substances used by military personnel are friends, pharmaceutical outlets, patent medicine stores and drug hawkers
3. Military personnel use psychoactive substances because they have the impression that they enhances performance of their respective tasks.
4. Military personnel use psychoactive substances for purpose of reducing tiredness, avoiding depression and any form of prolonged anxiety and most importantly because of peer influence.
5. The use of psychoactive substances is perceived to have adverse physical, mental and psychological effect on the users.
6. The use of psychoactive substances adversely affects the service delivery of individual users in their formations.

5.4 Recommendations

Based on the findings from the analyzed data, the researcher would want to recommend as follows:

1. That periodic orientation on the adverse effects of psychoactive substances use be embarked upon to sensitize personnel on the wrong notion held about advantages of such usages.
2. Effort should be made at discouraging drug hawkers from all military formations in the state.
3. Regular physical activities and recreation should be encouraged and all personnel should be made to participate, this will help to reduce anxiety and prevent psychologically induced stress.

5.5 Recommendation for Further Research

This study focused on military formations in Kaduna State. Further studies or research of this nature could be conducted among military formations in other states of the Federation towards discouraging the use of psychoactive substances among military personnel.

REFERENCES

.

Allen, J. (2005). *Coping with trauma: hope through understanding.* VA: American Psychiatric Publishing, Inc. 206 – 208

Allison – Aipa, T. Ritter, C. Sikes, P and Ball, S. (2010). The impact of deployment on the psychological health status, level of alcohol consumption, and use of psychological health resources of post deployed U.S. Army Reserve Soldiers. *Military Medicine.* 175(9), 630-637

American Psychiatric Association. (2000). Diagnostic and statistical manual of mental disorders (4th ed., text rev.). Washington, DC:

Atkinson, R. (2004). In the company of Soldiers. New York, NY: Henry Colt and Company LLC.

Baker, D.G Heppner, P Afari, N Nunnink, S. Kilmer, M Simmns, A. and Bosse, B. (2009). Trauma exposure, branch of service, and physical injury in relation to mental health among U.s. veterans returning from Iraq and Afghansitan. *Military Medicine,* 174(8), 773 - 367

Brown, J. Bray, R, and Hartzell, M. (2010). A comparsion of alcohol use and related problems among women and men in the military. *Military Medicine,* 175(2), 101-107.

Brower,K.J. (2002) Anabolic steroid abuse and dependence.www.ncbi.nlm.nih.gov/pubmed/12230967Curr Psychiatry Rep. 2002 Oct;4(5):377-87.

Bryant ,C. D. & shuckit, (2008) Khaki-Collar Crime: Deviant Behavior in the Military Context. *books.google.com.ng/book* - Snippet view

Davidson, G. C., Neale, J. M., (1996). *Abnormal psychology. National library of Australia*

Gibbs ,D. A. (2006) Spouse Abuse, Child Abuse, and Substance Abuse Among Army Families: Co-Occurrence, Correlates and Service Delivery Issues.CONTRACTING ORGANIZATION: Research Triangle Institute, Research Triangle Park, North Carolina 27709 USA.

Goffman ,F. B. (*1991)* An interviews with Sol Bay (May 29, *1991*), Charles Bay (June 1, *1991*; Amazon.co.uk: Erving *Goffman*: BooksResults 1 - 16 of 152 - Asylums: Essays on the Social Situation of Mental Patients and Other Inmates (Penguin Social Sciences)

Goure (2013) Hamful Drinking in Military Veterans with Post-Traumatic Stress Disorder

Greene-Shortridge, T. Britte, T & Andrew, C. (2007). The stigma of mental health problems in the military. *Military Medicine,* 172(2)157 – 161.

.

Hoge, C.W. (2004) Estimated prevalence of probable PTSD. http://www.who.int/mediacentre/news/releases/2004/pr61/en/

Ivy, A. C. & *Krasno*, L. R (*1991*) 'Fair Play: Ethical Issues of Doping in Sport', 'Amphetamine (Benzedrine) Sulphate: Drugs and Sport: Beyond Good and Evil B*ooks.google.com.ng/books?isbn=1134246862*

Jacobson, I. G. Ryan, M. K. Hooper, T. J. Smith, T. C. Amoroso, P. J. Boyko, E. J. and Bell, N. S. (2008). Alcohol and alcohol-related problems before and after military combat deployment. JAMA: *Journal of the American Medical Association*, 300(6), 663-675.

Jacobsen, L. Southwick, S & Kosten, T. (2001). Substance use disorders in patients with posttraumatic stress disorder: a review of the literature. *The American Journal of Psychiatry, 158 (8), 1184 – 1190 -47*

Jakjupcak, M. Tull M.T. McDemott, M.J. Kaysen, D. Hunt, S and Simpson, T. (2010). PTSD symptom clusters in relationship to alcohol misuse among Iraq and Afghanistan war veterans seeking post –deployment VA health care. Addictive Behaviors, 35 (9), 840 – 843.

Killgore, William D.S., Dave I. Cotting, Jeffrey L. Thomas, AnthonyL. Cox, Dennis McGurk, Alexander H. Vo, Carl A. Castro, and Charles W. Hoge. 2008. "Post-Combat Invincibility: Violent Combat Experiences are Associated with Increased Risk-Taking Propensity Following Deployment." Journal of Psychiatric Research, Vol. 42,No. 13, pp. 1112–1121.

Kim, P. Y Bliese, Wilk, J.E. Hoge, C McGurk, D. Thomas J.L. P.D (2010). Relationship of combat experiences to alcohol misuse among U.S. Soldiers returning from the Iraq war. Drug and Alcohol Dependence, 108, 1-2 1, 115 - 121.

Kirst – Ashman K K & Hull, Jr., H.G. (2010). Generalist Practice with Organization & Communities. CA Brooks/Cole Thomson Learning.

Kofoed, L Friedman J & Peck, R. (1993). Alcoholism and drug abuse in patients with PTSD, Psychiatric Quarterly, 64 (2) 151 -171

Krejcie & Morgan (1970:228). "Determining Sample Size for Research and Psychological Measurement" Journal ,30 :607-610

Maguen, S Lucenko, B, Reger, M Gahm, G Litz B Seal, K Marmar, C., (2010). The impact of reported direct and indirect klling on mental health symptoms in Iraq war veterans. Journal of Traumatic Stress, 23(1), 86-90.

Maraldi, C Harris, T.B. Newman, A.B Kritchevsky, S B Pahor, M Koster, A & Volpato, S. (2009). Moderate alcohol intake and risk of functional decline: The Health, Aging,and Body Composition Study. Journal of the American Geriatrics Society, 57(10) 1767 – 1775

Mauso (1999) theory of substance abuse

Melvin (1983) Drug and Alcohol addiction treatment

Mililiken, C.S. Auchterlonie, J.L & Hoge, C.W (2007). Longitudinal assessment of mental health problems among Active and Resave component soldiers returning from the Iraq war. *Journal* of America Medical Association 298(18), 2141 – 2148.

National Agency for Food and Drug Administration and Control (2013) www.nlipw.com/a-quick-look-at-some-**drugs**-**banned**-by-nafdac-in-**niger**...

Najavist, L.M. (2009). PTSD and substance abuse. A web course within PTSD: 101, http://www.ncptsd.org

Najavist, L.M. (2009). *Seeking safety: A treatment manual for PTSD and substance abuse.* New York, NY: Guilford Press.

National Association of Social Workers (2006). *Code of ethics of the national association of social works.* Washington, D.C NASW

National Institute on Drug Abuse (2011),Substance Abuse among the Military, Veterans, and their Families http://www.drugabuse.gov/**.**

Nunink, S E Goldwaser, G Happner, P.S. Pitman, J E Nievergelt, C.M. & Baker, D.G. (2010). Female veterans of the OEF/OIF conflict: Concordance of PTSD symptoms and substance misuse. *Addictive Behaviours, 35(7) 655 -659.*

Operation Iraqi Freedom (2003). America Rhetoric Available at htt://www.americanrhetoric.com/soeeches/wariniraq/gwbushiraq31903.htm.

Our Values. (20098). The values of the United States Air Force Available at: htt://www.airforce.com/learn-about/our-values/

PTSD and Problems (2007). National Centre for PTSD. Washington, D.C. Department of Veterans Affairs. Available at: htt://ww.ptsd.va.gov/public/pages/ptsd-alcohol-use.asp

Robin LN, Helzer J.E, *Davis* D.H.(1975) Narcotic use in southeast Asia and afterward. An interview study of 898 Vietnam returnees. Arch Gen Psychiatry Aug. 32 (8) 956-61.

Schuckit & Pastor (2008) Paranoia and hallucinosis may occur at a higher rate in older individuals or arise from acute or chronic alcohol intoxication. Annual Review of Gerontology and Geriatrics, Volume 2;

Sherman, N. (2010). The untold war: inside the hearts, minds, and souls of our soldiers. New York, London: W.W. Norton and Company

Solomon, Z. ,& Rachel D.. (2007). "Posttraumatic Stress Disorder and Posttraumatic Growth among Israeli Ex-POWs." Journal of Traumatic Stress, 20, (3): 303–312.

Stoker L. (2013) Creating Supermen: battlefield performance enhancing drugs. http://www.army-technology.com

Taylor (1991) The dangers associated with modernity's drive toward self realizationThe Ethics of Authenticity - Charles Taylor - Google Booksbooks.google.com Harvard University Press,

Tedeschi, Richard G., & Lawrence G. Calhoun. (1996). "The Posttraumatic Growth Inventory: Measuring the Positive Legacy of Trauma." Journal of Traumatic Stress, 9(3): 455

Van der K, B.A. McFarlane, A.C & Weisaeth, L (Eds), (1996). Traumatic stress: the effects of overwhelming experience on mind, body, and society (3 – 23). New York: The Guilford Press.

Wertsch, (*1991*).: A sociocultural theory of the situatedness of mediated action implies that: mental action is situated, that is, derives from and originates in " cultural, historical, and institutional settings " plorations in socio-cultural studies - Volume 2 - Page 104

Westphal, R (2007). Fleet leaders' Attitudes about subordinates use of mental health services Military Medicine, 172(11), 1138 – 1143.

Wright, K;Cabrera, O Bliese., P, Adler, A Hoge, C & Castro, C (2009). Stigma and barriers to care in soldiers postcombat, Psychological services 6(2), 108 -116.

Appendix I

Department of Physical and Health
Education,
Ahmadu Bello University,
Zaria.
06Tth September, 2013

Dear Sir/Madam,

Letter of Introduction in respect of Hurera Maccido Mouktar

Hurera Maccido Mouktar with Reg. No MED/Edu/02314/2010/11 is a Postgraduate Student of the Department of Physical and Health Education, Ahmadu Bello University, Zaria.

She is currently conducting a research titled "Assessment of Substance use and Abuse Among Military Personnel in Kaduna State".

In view of this, I therefore wish to introduce her to you as one of my research student.

Please, kindly offer her all necessary assistance and cooperation required to enable her collect data for her thesis.

Thanking you for your cooperation.

Yours faithfully

Professor Mariam A. Suleiman
Major Supervisor.

Appendix II

Department of Physical and Health
Education,
Ahmadu Bello University,
Zaria.
7th June, 2013.

Dear Sir/Ma,

Request to Vet Questionnaire

Hurera M.Maccido is a postgraduate student of the above named department, she is currently working on her thesis titled "Assessment of Substance use and Abuse Among Military Personnel in Kaduna State".

A number of questions have been prepared as well as the research questions and the hypothesis of the study in respect of the topic.

In view of your expertise, you have been chosen as one of the jurists to Vet the questionnaire which is attached herewith. Kindly go through the questionnaire critically and make your suggestions.

Thank for your co-operation.

Yours faithfully,

Prof. (Mrs) M.A. Suleiman
Major Supervisor

APPENDIX III

QUESTIONNIARE

Department of Physical and Health
Education Faculty of Education,
Ahmadu Bello University, Zaria.

Dear Respondents,

The researcher is a Post graduate student of the above named institution and is currently conducting a research titled: Assessment of substance use among Military personnel in Kaduna state.This questionnaire is aimed at gathering relevant information or data for the research work which is strictly restricted to academic purpose. Your honest cooperation towards filling the questionnaire will be highly appreciated and the provided information will be confidentially treated.

Thank you.

Yours faithfully

INSTRUCTION

Kindly tick (√) the alphabet that best represent your opinion in section 'A'

SECTION A: Personal data

1. Age: (a) Below 25yrs [ ] (b) 26-35yrs[ ] (c) 36-45yrs[ ]
   (d) Above 45rs[ ]

2. Sex: (a) Male[ ] (b) Female[ ]

3. Barrack……

4. Educational attainment:(a)SSCE[ ] (b)Diploma[ ] (c) Degree[ ]

5. Marital Status: (a)Single [ ] (b) Married[ ] (c) others[ ]

In the remaining sections you are expected to tick the level of your agreement with the statement. The range is 1 to 4 where 1 = Strongly Disagree (SD), 2=Disagree (D), 3=Agree (A) and 4=Strongly Agree (SA)

SECTION B: TYPE OF DRUG USED

S/n	Which of the substance use do you frequently used?	SA	A	D	SD
1	Alcohol				
2	Cigarettes (Tobacco)				
3	Solution				
4	Marijuana				
5	Valium, Aspirin, Panadol				
6	Cocaine				
7	Amphetamine				
8	Heroin				
9	Caffeine overdose				
10	Stimulants substance use prescribed by Doctors				

SECTION 'C' SOURCES OF SUBSTANCE USE

11	Through Medical Doctor				
12	Patent medicine store				
13	Pharmacy shop				
14	Drug hawkers				
15	Parents' safes				
16	Friends				

SECTION 'D' REASONS FOR USE

17	For fame/recognition and desire to belong to a group influences				
18	I take substance use like alcohol and others intoxicants for relaxation				
19	I take substance use to cope with stress in the daily activities				
20	I use substance use to increase my mental alertness				
21	I use substance use to enhance my physical ability when am under pressure to increase performance and succeed				
22	If I do not take substance use, I generally do not feel comfortable				
23	There is a generally perception among military personnel that substance use generally enhances performances				
24	Substance use help personnel recover from a hard workout more quickly				
25	Substance use help personnel to avoid depression and any form of prolong anxiety				
27	Substance use that are stimulants helps personnel to eliminate hide tiredness				

SECTION 'E' EFFECTS OF SUBSTANCE USE USE

28	Drug use leads to cardiovascular diseases like breathing problems and heart failure (heart attack)				
29	Drug use leads to careless attitude towards things and can easily leads to negligence o duty by personnel				
30	Drug use causes physical pains such as Joint aches,				

	restlessness and impaired vision				
31	Sometimes, some tasks assigned are neglected because of substance use use				
32	Drug use sometimes lead to disregards of social norms/authority				
33	The public generally have disrespect for drug addict				
34	Personnel who use substance use are easily distinguished from those who do not				
35	Drug use has negative effect on the mental health of personnel and sometimes leads to termination of such personnel				
36	Personnel use are habitual drug users often have problems with their family				
37	Habitual drug use by military personnel makes them to be disrespected among their peers				

SECTION 'F' EFFECT OF SUBSTANCE USE ON SSERVICE DELIVERY BY MILITARY PERSONNEL

38	I sometime get punished because I report to work late				
39	My superiors always disapprove my efficiency at work that is why my promotion is very regular				
40	I sometimes feel like abandoning duty post to take some stimulants				
41	I prefer to associate with friends who are taking the same things like myself even if their performance at work is bad				
42	I have been reported by intelligence unit sometimes to my superior				
43	I find my assignment very difficult most of the time because the tasks are always above my intellectual ability				
44	I am very sad at time to do my assignment in the army and in other places where a task is given tome				
45	I sometimes default in the execution of tasks assigned to me by my superior in the military				
46	I sometimes feel physically unwell after the use of substance use				
47	Substance use use have adverse effect on my performance				