KNOWLEDGE, PERCEPTION AND USE OF PSYCHOACTIVE SUBSTANCES AMONG COMMERCIAL MOTORCYCLE RIDERS IN MINNA METROPOLIS, NIGER STATE, NIGERIA

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DEDICATION

This work is dedicated to the glory of God Almighty.

CERTIFICATION

I hereby certify that this study was carried out by ILIYA Laban Danlami in the Department of Health Promotion and Education, Faculty of Public Health, College of Medicine, University of Ibadan, Nigeria, under my supervision.

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ABSTRACT

The prevalence of Psychoactive Substance (PS) induced Road Traffic Accident (RTA) among Commercial Motorcycle Riders (CMRs) in Minna is of public health concern. However, knowledge of the dangers, health implications and types of PS used by CMRs is yet to be well explored. This study was designed to investigate the knowledge, perception and use of PS among CMRs in Minna metropolis.

A cross-sectional study design was adopted and a four-stage random sampling technique was used to select 500 CMRs from commercial motorcycle operating units in Minna metropolis. A semi-structured interviewer-administered questionnaire was used to elicit information on the socio-demographic characteristics of respondents, prevalence, and factors influencing Use of Psychoactive Substances (UPS). Respondents' knowledge and their perceptions of health implications of UPS were assessed a 20-point scale each. Knowledge scores of ≤ 7, > 7-12, and >12 were rated as poor, fair, and good knowledge respectively. Perception score of ≤10 and >10 were classified as negative and positive perceptions respectively. Data were analyzed using descriptive statistics, linear regression and Chi-square test at p = 0.05.

Age of respondents was 27.8 ± 6.8 years. Some (37.4%) respondents were Hausa and (48.6%) had western education. Prevalence of UPS was 70.8% with age at initiation being 20.1 ± 2.3 years. The commonly used PS included cigarettes (9.1%), Indian hemp (8.5%) and sedatives (7.9%). Most (80.5%) respondents who used PS worked for eight hours or more a day. Knowledge score was 12.1 ± 4.3. Proportions of respondents with good, fair and poor knowledge were 47.0%, 37.6% and 15.4% respectively. Perception score relating to UPS was 11.2 ± 4.7. Many (54.4%) had a positive perception of UPS. Many (53.0%) opined that some PSs (Cigarettes and Alcohol) are socially acceptable while 52.6% were of the perception that PS do not increase accident rate among CMRs. Some (46.83%) of respondents who had used PS were involved in RTA within the last 3 months preceding the study (p≤0.05) with limb injuries being the most common (50.9%) form of injuries sustained. Main predisposing factors for UPS is peer pressure (58.6%), ignorance (23.6%) and curiosity (15.4%). Reasons for UPS included to be more active (22.6%), to keep awake (19.6%) and to increase strength (17.6%). However, the desire for more power/energy had the greatest contribution to the UPS (r2 = 0.80, 95% CI: 3.2-3.6). Majority (57.7%) respondents who use PS were introduced to it by friends. Consequences of UPS included strained relationship with family and friends (39.0%), addiction (25.9%), and anxiety (13.58%). There was a significant relationship

between educational qualifications and UPS, ($p \leq 0.05$). The use of UPS was significantly lower among adolescent CMRs aged 15-24 years while there was a significantly higher prevalence of UPS among CMRs with negative perception.

The abuse of psychoactive substances was common among respondents in spite of their good knowledge and positive perception towards the use of psychoactive substances. Health promotion interventions such as peer education, training and group counseling are recommended.

Keywords: Psychoactive substances, Commercial motorcycle riders, Road traffic accident, Drug Related Problems, Road traffic injuries.

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Laban Danlami **ILIYA**

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A.D	-	Anno Domino
ACCOMORAN	-Amalgamated Commercial Motorcycle Riders Association of Nigeria.	
AIDS	-	Acquired Immune Deficiency Syndrome
B.C	-	Before Christ
CMRs	-	Commercial Motorcycle Riders
DALYs	-	Disability – adjusted life years
GABA	-	Gamma Amino Butyric Acid
GBD	-	Global burden of disease
HIV	-	Human Immune Deficiency Syndrome
LGAs	-	Local Government Areas
NAFDAC	- National Agency for Food and Drug Administration and Control	
NCHADI	-	National Clearinghouse for Alcohol and Drug information.
NDLEA	-	National Drug Law Enforcement Agency
NHS	-	National Health Survey
NHTSA	-	National Highway Traffic Safety and Administration
NSDUH	-	National Survey on Drug Use and Health
PS	-	Psychoactive Substance
PSU	-	Psychoactive Substance Use
RA	-	Research Assistants
RTA	-	Road Traffic Accident
RTI	-	Road Traffic Injuries
SPSS	-	Statistical Package for Social Sciences
UKCIA	-	United Kingdom Cannabis Internet Activist.
UNDCP	-	United Nations International Drug Control Programme
UNODC	-	United Nations Office on Drug and Crime
UN-ODCCP	-	United Nations Office for Drug Control and Crime Prevention
WHO	-	World Health Organization

1.8 Definition of Terms

Psychoactive drugs or substances: Chemicals that alter mental functioning for the effects on mood and/or with an altered state of subjective reality. i.e they have the ability to change an individual's consciousness, mood or thinking processes. They include illegal drugs, some prescription drugs, alcohol and tobacco. (Drugs and Substances have been used interchangeably in this report).

Substance use Persistent or sporadic drug use inconsistent with or unrelated to acceptable medical practice.

A commercial motorcycle rider: A commercial motorcycle rider also referred to as "Achaba/Going/Okada/" rider in Nigeria is a situation where by motorcycle riders carry passengers for a fee.

Drug Related Problems: This term is used to describe all negative effects associated with drug abuse such as violence, conflicts with friends or school authorities, destruction of school property and academic under performance.

Drug Policy: A brief statement outlining a governments' stand or position on procedures for dealing with drug-related issues

Road traffic accident: This occurs when a vehicle collides with another vehicle, pedestrian, animal, road debris, or other stationary obstruction such as a tree or a utility pole. It is an unfortunate incident that happens unexpectedly and unintentionally, typically resulting in injury, death or property damage.

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Psychoactive Substance Use (PSU) is a global public health concern often characterized by problems of unemployment, neglect, violence and sexual abuse among young people as reported by United Nations Office on Drug and Crime (UNODC), 2005; Lakhanpal and Agnihotri, 2007; and Abudu, 2008). The problem of the substance abuse places a significant threat to the social, health, economic fabrics of the families, society and the entire nations. (Giade, 2011; Oshodi, Aina and Onajole, 2010). Almost every country in the world is affected from one or more drug being abused by its citizens (United Nations Office on Drugs and Crime, 2011a). These substances are captured broadly by the term psychoactive substances and are consumed for a variety of purposes.

Psychoactive substances refers to drugs or substances rather than foods which when taken may modify the perception, mood, cognition, behaviour or motor functions of individuals. These include alcohol, tobacco, solvents, marijuana or Indian hemp, caffeine (Kola), coffee, cannabis, cocaine, benzodiazepines, palm wine and 'paraga'(an alcoholic herbal mixture) National Highway Traffic Safety Administration (NHTSA) 2008; Alti-Muazu and Aliyu, 2008; Arcuri, 2009; Odejide and Olabisi 2004; Adogu, Ilika, and Asuzu, 2009). Many individuals use these substances for their perceived personal benefits to mood, to escape or relieve psychic distress, and/or as part of a dependency process. The use of psychoactive substances is prevalent among young people especially Commercial Motorcycle Riders (CMRs) and have become one of the most disturbing health related phenomena in Nigeria according to National Drug Law Enforcement Agency, (NDLEA, 1997).

Substance abuse is a rapidly growing global problem. (Lakhanpal and Agnihotri, 2007; United Nations Office of Drugs and Crime, 2007; Abudu, 2008). Substance use and dependence cause a significant burden to individuals and societies throughout the world. The World Health Report 2002 indicated that 8.9% of the total burden of disease comes from the use of psychoactive

substances. Almost every country in the world is affected from one or more drug being abused by its citizen's (United Nations Office on Drugs and Crime, 2007)

In Nigeria, commercial motorcycles constitute one of the chief modes of transportation and by far, the most common form of informal transport (Okojie, Omuemu and Ighodaro 2006; Arosanyin, Olowosulu and Oyeyemi, 2012). There has been a phenomenal increase in the use of motorcycles for commercial purposes in most cities of Nigeria in the last few years. For instance, as at 2008, there were over 120,000 motorcyclists in Akwa Ibom State alone, which is just one of the 36 states in Nigeria. (Johnson and Adebayo, 2011) The use of motorcycles for passenger transport gained acceptance and wide recognition in Nigeria after the economic recession of the early 1980s (Owoaje, Amoran, and Ohnoferi, 2005; Ogunbodede, 2008). The lack of adequate and sustainable public transport system combined with poor urban planning in most Nigerian cities created a transport gap for the motorcycles to fill in passenger transportation needs (Arosanyin, Olowosulu and Oyeyemi, 2012).

Motorcycle use as a means of transportation in Nigeria heightened due to its convenience, affordability, easy maneuverability and ability to navigate through poor road networks and traffic congestions found in large and commercial cities, compared to four wheeled vehicles. (National Highway Traffic Safety Administration NHTSA (2008). For residents in urban cities, motorcycling is a popular means of transportation for selected persons who cannot maintain their cars for economic reasons and unemployment constraints (Okojie, Omuemu and Ighodaro, 2006). The relatively low costs of purchase and operation/maintenance of commercial motorcycles keep attracting numerous job seekers, thus helping to reduce unemployment, particularly among high school and college graduates (Oginni, Ugboko and Adewale, 2007).

It is however saddening that as much as CMRs contribute to enhancement of livelihoods, their involvement in road accidents is increasing at a rate they are thought to constitute a menace to the society (Chizoma, Obed and Ezinne, 2014). A substantial number of road crashes in Nigeria involve motorcyclists. Evidence shows that, motorcycles accounted for 42% of crashed vehicles in the year 2000; 43.7% in 2004; 26.34% in 2008 and 22.7% in 2009. The percentage

involvement of motorcycles in the decade data (2000-2009) stood at 26.24%. This means that one in every four vehicles involved in crash is a motorcycle (Arosanyin, Olowosulu and Oyeyemi, 2012). Motorcycling is the mode of transport involving by far the greatest risk to human lives (Johnson and Adebayo, 2011; Okojie, Omuemu and Ighodaro 2006). The factors associated with risk from motorcycling operate at three levels namely the agent (vehicle), the host (road user) and environment (road-condition), as described Ngim and Udosen. (2007).

The use of substance and its risk of injuries had been implicated among those involved in motorcycling activities (Ngim and Udosen, 2007). According to 2003 National Survey on Drug Use and Health (NSDUH) report (2003), 16.6% of adult drivers aged 21 and above (an estimated 30.7 million persons) reported that they had driven while under the influence of alcohol during the past year. Among drivers of this age group, 15.7% had driven under the influence of alcohol during the past year and 3.0% had driven under the combined influence of alcohol and drugs during the past year. Also, in 2003, 10.9% of motorcyclists that were involved in fatal motor vehicle crashes were reported to have driven under the influence of alcohol (NSDUH, 2003).

In a study by Adogu, Ilika, and Asuzu, (2009) on predictors of Road Traffic Accident (RTA) in Nigeria, alcohol intake among the motorcyclists was found to be an obvious predictor of RTA and death, (Adogu, Ilika, and Asuzu, 2009). A high prevalence of 59.5% of RTA that was associated with the use of psychoactive drugs was found among motorcyclists according to a study conducted by Alti-Muazu and Aliyu, (2008) in Zaria, Nigeria. The National Highway Traffic Safety Administration (NHTSA) has reported an increasing numbers of motorcycle deaths associated with alcohol-impaired driving in recent years, especially among persons aged 40 years and above (Paulozzi and Patel, 2004).

1.2 Statement of the problem

In many cities in Nigeria, very huge proportions of CMRs have been found to indulge in the use of certain psychoactive substances (Okeniyi, Oluwadiya, Ogunlesi, Oyedeji, Oyelami, Oyedeji, and Oginni, 2005; Alti-Muazu and Aliyu, 2008). Findings from a recent rapid situation assessment conducted in Minna and other towns across the country indicate a very high prevalence of substance abuse by youths including the commercial motorcycle operators. (Danjuma, Taiwo, Omoniyi, Balarabe, and Kolo, 2015; Coleman, 2010). In a study in 2006, (Okojie, Omuemu, and Ighodaro, 2006) posited that in more than half of motorcycle fatalities, alcohol use was the key ingredient, and that significantly higher levels of alcohol use are attributable to motorcycle riders than car drivers. Indeed, the leaders of commercial motorcyclists associations in Nigeria admitted complicity of their members regarding use of intoxicants and that most commercial motorcycle accidents were traceable to use of intoxicants (Adako, 2007). Other empirical evidences for the use of intoxicants (alcohol) among CMRs was provided by the work of Ngim and Udosen (2007), who found that about 35% of CMRs in their study used alcohol to 'enhance job performance'.

Umoh (1992) stated that any usage of substances is associated with negative effects. The smoking of Indian hemp could lead to brain damage and psychological effects including false confidence that makes the rider to engage in dangerous driving and criminal activities. Hallucination and delusions are also common. Substance abuse comorbidity has also been associated with generally poor clinical outcomes among severely mentally ill individuals in the community. Violence committed by individuals with severe mental illness living in the community has become an increasing focus of concern among clinicians, policy makers, and the general public (Swartz, Swanson, Hiday, Borum, Wagner, and Burns, 1998). Other effects of substance use include aggressiveness, memory loss and loss of interest in any constructive activity which may consequently lead to poor performance and lack of progress in life. (Oshiname and Briegs, 1998).

Studies have shown that lack of knowledge leaves people exposed to substances use while an awareness of the relevant facts allows them to choose healthy lifestyles through the ability to resist social pressure to use drugs (Roe & Becker, 2005). Many youths however, display very poor knowledge and behavior towards substances use as observed by Olaitan (2006). They also exhibit poor or low awareness of the health effects of substance use. The studies of Eneh and Stanley, (2004) and Oshikoya and Alli (2006) attributed the poor knowledge of the adverse health effects of substances abuse to inadequate drug education and lack of appropriate information about substances use.

Despite the alarming rate of increase in the abuse of illicit substances among CMRs in Minna and many other cities in Nigeria much is yet to be achieved in providing evidence-based intervention to the phenomenon. Studies focusing on issues relating to PSU among CMRs which are inadequate are necessary for performing appropriate public health interventions. This study therefore was designed to focus on knowledge, perceptions and factors influencing psychoactive substance use among commercial motorcycle riders in Minna metropolis, Niger State, Nigeria.

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1.3 Justification

The practice of PSU by CMRs carries serious health consequences whether in the short term or long term. Such harm can result from the cumulative amount of psychoactive substance used, for example, the toxic effect of alcohol in producing liver cirrhosis. (Chizoma, Obed, and Ezinne, 2014). Consumption of substances before driving has the ability to impair cognitive functions of the motorcycle driver and reduces his sense of judgment. It affects their perception and interpretation of bad driving. This consequently could lead to the occurrence of RTA. Also, the use of psychoactive substances may increase CMRs vulnerability to serious health conditions such as cardio-vascular diseases, HIV and AIDS and hepatitis (Alti-Muazu and Aliyu, 2008). Psycho-social consequences that CMRs may experience as a result of use of psychoactive substances include memory loss, schizophrenia anxiety, depression and restlessness. Major health implications of PSU among CMRs is the high incidence of accidents and injuries which have been observed in various parts of the country (Owoaje, Amoran, and Ohnoferi, 2005; Okojie, Omuemu and Ighodaro, 2006; Alti-Muazuand Aliyu 2008).

There is paucity of systematically collected information on issues relating to use of psychoactive substances among commercial motorcycle riders in Minna Metropolis. Findings from this research has the potential to facilitate the design of public health measures focusing on prevention and control of use of psychoactive substances among CMRs with its consequential effect on reducing road traffic accidents.

1.4 Research Questions

The following research questions were set for the study.

1. What is the prevalence of psychoactive substance use among respondents?
2. What is the level of respondents' knowledge of the health implications of psychoactive substance use?
3. What are the respondents' perceptions of the health implications of psychoactive substances?
4. What are the factors influencing psychoactive substance use among respondents?
5. What are the respondents' perceived consequences of psychoactive substance use?

1.5 Broad objective

The broad objective for study is to assess knowledge, perceptions and use of psychoactivesubstance among commercial motorcycle riders in Minna metropolis, Niger state, Nigeria.

1.6 Specific objectives

The specific objectives of this study were to:

1. Determine the prevalence of psychoactive substance use among respondents
2. Assess respondents' knowledge of the health implications of psychoactive substance use
2. Determine respondents' perception of the health implications psychoactive substances
4. Identify factors influencing substance use among respondents
5. Assess respondents' perceived consequences of psychoactive substances use

1.7 Research hypothesis

1. There is no significant relationship between age of respondents and use of psychoactive substance
2. There is no significant relationship between respondents' perception and use of psychoactive substance
3. There is no significant relationship between respondents' level of education and use of psychoactive substance
4. There is no significant relationship between age of respondents and knowledge of psychoactive substance.

CHAPTER TWO

LITERATURE REVIEW

2.1 History of Psychoactive Substances

There is historical evidence of the production of alcoholic beverages as early as 10,000 BC (Mir, Khan, Ahmed and Abdul, 2012). The wine jars from Jiahu China which date back to centuries BC, is an evidence of the long standing existence of alcoholic beverages made from fermenting rice, honey, and fruit. A variety of alcoholic beverages were used in China since Paleolithic times. Alcohol, known in Chinese as Jiu was considered a spiritual food rather than a material (physical) food, and extensive documentary evidence attests to the important role it played in their religious life (Mir, Khan, Ahmed, Abdul, 2012). Alcohol gained prominence as a product to boost the economic power of several nations in the past and as a means of showing hospitality. It has religious significance as it is used in religious worship, being offered to gods, in ceremonies, marriages, celebration of victories in wars and other combats, and as a drug to induce anaesthesia.

In Sub-Saharan Africa, other alcoholic beverages like palm wine played important role in many African societies, and other alcoholic beverages produced through fermentation of sorghum, millet, and more recently maize or cassava was common in most parts of Africa. Tobacco is a plant that grows natively in North and South America. As early as 1 B.C., American Indians began using tobacco in many different ways, such as in religious and medicinal practices and was believed to be a cure-all medicine (Randall, 1999).

During the 1600's, tobacco was so popular that it was frequently used as money and was literally "as good as gold" (Randall, 1999). This was also a time when some of the dangerous effects of smoking tobacco were being realized by some individuals (James, 2012). European sailors were heavy smokers at the time and their trans-border activities were partly responsible for the spread of tobacco use to most parts of the world (Randall, 1999). Despite campaign against it, tobacco is one of the leading preventable causes of death all over the world (McArdle, 2004). Cannabis is an indigenous plant to Central and South Asian people and the cannabis plant has been used in China, India, and the Middle East for approximately 8000 years for its fiber and as a medicinal

agent (Sadock and Sadock, 2007). However, a Chinese treatise on pharmacology attributed to the emperor Shen Nung, and alleged to date from 2737 B.C. contains probably the earliest reference to cannabis and its potential as a medicine (United Kingdom Cannabis Internet Activist, UKCIA, 2014). Cannabis occupies fourth place in worldwide popularity among the mind-affecting drugs - preceded only by caffeine, nicotine and alcohol (UKCIA, 2014). This drug was criminalized in various countries beginning in the early 20th century and is one of the illicit drugs in most parts of the world. Its legal status has been a crucial matter for *debate* in several jurisdictions of the world at present including some states in the USA where the use of the drug has been recently legalized.

The remains of coca leaves have been found with ancient Peruvian mummies, and pottery from the time period depicts humans with bulged cheeks, indicating the presence of something on which they are chewing (Altman, Albert and Fournier, 1985). The coca leaves are indigenous to the Peruvian communities and it has been suggested that the content of the bulged cheeks could have been coca leaves (Altman *et al.*, 1985). The South American peoples have chewed the leaves of Erythroxylon coca for over ten centuries, a plant that contains vital nutrients as well as numerous alkaloids, including cocaine (Altman *et al.*, 1985).

The coca leaf was, and still is, chewed almost universally by some indigenous communities. Coca has been used as a medicinal plant, a ritual agent, a local anesthetic and as content in beverages in the past (Karch, 1999). It is a major illicit drug of abuse involved in trans-border trafficking and drug-related criminal activities worldwide. There is general agreement that the Sumerians, who inhabited what is today‘s Iraq, cultivated poppies and isolated opium from their seed capsules at the end of the third millennium B.C. They called opium "*gil*,"meaning joy (Brownstein, 1993). Most authors agree that, as early as the eighth century A.D., Arab traders brought opium to India and China and that between the tenth and thirteenth centuries opium made its way from Asia Minor to all parts of Europe (Brownstein, 1993) It appears that opium spread from Sumeria to the remainder of the old world and with the drug, came addiction. Starting in the sixteenth century, manuscripts can be found describing drug abuse and tolerance in Turkey, Egypt, Germany, and England. Nowhere was the problem of addiction greater than in China where the practice of smoking opium began in the mid-seventeenth century (Brownstein,

1993). Some Psychoactive substances which are indigenous to Africa include Khat, a stimulant drug derived from a shrub (*Catha edulis*). It is commonly chewed by people in the horn of Africa (Gebissa, 2010).

Khat-chewing is a practice usually found among locals in countries where the plant is indigenous. Khat has not been placed under international control because the scientific evidence of harm is unlikely to rise to a critical mass that would justify its illegalization. However, in the west, it is increasingly considered as a highly potent controlled substance rendering its possession, cultivation and trade illegal (Gebissa, 2010). Similarly, Kola nut which is indigenous to tropical Africa, has its centre of greatest diversity in West Africa and is an important economic cash crop to a significant proportion of Nigerian population who are involved in kola farming, trading and industrial utilization (Asogwa, Anikwe and Mokwunye, 2006). Kola nut is widely consumed in Nigeria. After consuming the kola nut, one can go for hours without food or sleep, thus postponing the onset of fatigue (Asogwa, 1978). Other drugs of abuse have similar long standing history of use as they have been related to the culture, ancient tradition, religion and medical uses.

2.2 Prevalence of psychoactive substance use.

2.2.1. Global Psychoactive Substance Use Statistics

Globally, it is estimated by the United Nations Office on Drug and Crime (UNODC) survey that between 149 and 272 million people,(about 3.3% to 6.1% of the population aged 15-64) has used illicit substances at least once in the previous year, and about half this number is estimated to have been current drug users, that is, having used illicit drugs at least once during the past month prior to the United Nations Office on Drugs and Crime annual survey (UNODC, 2011). Over a decade ago, the World Health Organization estimated the extent of worldwide psychoactive substance use at 2 billion alcohol users, 1.3 billion smokers and 185 million drug users (WHO, 2002). However, the use of psychoactive substances for which there is global effort at their control continues to be substantially lower than the use of a legal psychoactive substance such as tobacco (WHO, 2004a). The overall number of drug users appears to have increased over the last decade, from 180 to some 210 million people.

The prevalence of drug users among the population aged 15-64, has remained almost unchanged at around 5% in 2009/2010 (United Nations Office on Drugs and Crime, 2011). Although about a third of the world‘s population is said to be users of alcohol in various forms, (WHO, 2002a), caffeine is found to be the most used psychoactive substance globally, with an estimated users of 203 million people, equivalent to a prevalence of 4.5% of the population aged 15 – 64years. (Sadock and Sadock, 2007).

In Africa, alchohol is the most commonly abused drug with more than 5 billion liters consumed in South Africa annually. In terms of legality, cannabis remains by far the most widely used illicit substance (United Nations Office on Drugs and Crime, 2011). The number of cannabis users was estimated between 125 and 203 million in 2009, equivalent to a prevalence of 2.8%-4.5% of the population aged 15-64. Other illicit drugs of abuse in decreasing frequency of use are amphetamine and amphetamine-like substances, opiates, and cocaine (United Nations Office on Drugs and Crime, 2011). In the African region, Alcohol remains the most commonly abused drug in South Africa, followed by dagga (cannabis) and the dagga/Mandrax (white pipe) combination (Parry, 1998). South Africans consume well over 5 billion litres of alcoholic beverage per year (Parry, 1998). The overall prevalence of alcohol misuse is likely to be as much as 30% among certain groups and as low as about 5% in others, and is dependent on factors such as age, gender, socio-economic status and degree of urbanization (Parry, 1998). An unprecedented international attention is drawn to West Africa‘s role as an intermediary in the cocaine trade between Latin America and Europe. According to the United Nations Office On Drugs And Crime‘S estimate, about a quarter of Europe‘s annual consumption of 135 to 145 tonnes of cocaine currently transits via West Africa.

In addition to the cocaine trade, West Africa is also a transit point for much smaller quantities of heroin exported from Asia to North America, as well as being a producer and exporter of cannabis products and perhaps amphetamines. Males tend to use the substances more than females (WHO, 2004b), and this accounts partly for their higher proportion with drug dependence and other problems, including being overrepresented in treatment settings for substance use disorders.

There are regional variations in drug use across the world. These differences are related to factors such as income, but not necessarily drug policy, since countries with more stringent policies towards illegal drug use were not found to have lower levels of such drug use than countries with more liberal policies (United Nations Office on Drugs and Crime, 2011). To the extent that it applies, the economic viability of a nation and the ability of drug users to sustain funding their substance of choice which is related to their income as well as the local availability of the substance are important determinants of drug use.

2.2.2 Psychoactive Substance Use (PSU) in Nigeria

Psychoactive Substance Use (PSU) became a public health issue in Nigeria in the 1960s with the discovery of cannabis farms in the country, arrests of Nigerian cannabis traffickers abroad, and reports of psychological disorders suspected to be associated with cannabis use. By the 1980s, the abuse of cocaine and heroin was added to the public health burden. It is strongly believed that soldiers and sailors returning from Second World War introduced cannabis into Nigeria. The later introduction of cocaine and heroin into Nigeria was attributed to Nigerian Naval Officers in training in India who were involved with trafficking activities in the early 1980s (Obot, Ibanga, Ojiji and Wai, 2001).

Furthermore, Nigeria is a transit point for heroin and cocaine intended for European, East Asian, and North American markets. Since 2004, drug trafficking organizations have been increasingly using West African countries including Nigeria for smuggling large amounts of cocaine from South America into Europe and North America consequently increasing the availability and use of cocaine and heroin. Nigeria currently has the third highest one-year prevalence of cocaine and opioids use in Africa at 7% for both drugs (United Nations Office on Drugs and Crime, 2011). The most abused illicit drug in Nigeria is cannabis, mainly in its herbal form. This is due to the fact that cannabis is home grown and relatively cheap. The price of one unit of cannabis is often about the same as that of a bottle of beer (United Nations Office on Drugs and Crime, 2011). At 14.3%, the country has the highest one-year prevalence rate of cannabis use in Africa (United Nations Office on Drugs and Crime, 2011). The average globally assessed prevalence rate of cannabis use is 3% (United Nations Office on Drugs and Crime, 2013).

2.2.3 Burden of Disease and Prevalence

In an initial estimate of factors responsible for the global burden of disease (GBD), tobacco, alcohol and illicit drugs contributed together 12.4% of all deaths worldwide in the year 2000 (WHO, 2002b). GBD is defined by the World Health Organization as a comprehensive regional and global assessment of mortality and disability from 136 diseases and injuries and 19 risk factors; it accounts for the morbidity and mortality to an individual that is caused by a specific disease (Jamison *et al.*, 2006). The percentage of total years of life lost due to these substances has been estimated to account for 8.9% (WHO, 2002b). A study found the rate of current illicit drug use among Americans aged 12 and older to be 8.7% higher than it was in the preceding year (NSDUH, 2010). Similarly, in England and Wales, 10.1% of adults (16-59years) had used one or more illicit drug within the past year, compared with 9.6% in the previous year of the study as documented by National Health Survey, (2006).

Drug use is also prevalent in most parts of Asia and the practice has involved virtually all classes of psychoactive substances known today (Suwanela and Poshyachinda, 2011). The epidemic of substance abuse has assumed alarming dimensions in India (Nadeem, Rubeena, Agarwal and Piyush, 2009). Cannabis, heroin, and Indian-produced pharmaceutical drugs are the most frequently abused drugs (Nadeem *et al.*, 2009). A review on the recent trend on drug abuse in china shows that drug abuse has spread quickly since it re-emerged as a national problem in the late 1980s with the accompanying spread of Human immunodeficiency virus (HIV) which has caused major social and economic damage (Wang, Shi, Liz and Lu, 2006).

According to Asuni and Pele, (1986) apart from cannabis abuse in northern and southern Africa and khat chewing in north-eastern Africa, the history of drug abuse in Africa is relatively short but that the abuse of drugs in Africa is escalating rapidly from cannabis abuse to the more dangerous drugs and from limited groups of drug users to a wider range of people abusing drugs (Asuni and Pele, 1986). Odejide and Olabisi (2004) opined that the introduction of prescription drugs to Africa drastically increased the availability and use of psychoactive substances. This notwithstanding, alcohol, cannabis and khat was noted as to remain the most common substances of abuse in Africa (Odejide, 2006). There has been a surge in the use of recent past partly due to

the availability of and trafficking activities of narcotics and other stimulants across the continent. In Nigeria, reports of high use have been studied and documented especially among young people in secondary and tertiary institutions, with reports of lower age at initiation and the trend is said to be rising in some part of the sub region (Abiodun, Adelekan, Ogunremi, Oni, and Obayan, 1994; Anochie, Nkanginieme, Eke and Alikor, 1999).

2.2.4 Typology of Psychoactive Substances and their Effects

Cigarettes

The use of cigarettes usually precedes the use of other drugs, such as cannabis, khat cocaine and heroin (Masibo, Erasmus, Stephen, 2013). It contains nicotine which has demonstrated dose-related euphoric effects similar to those of cocaine and morphine. Additionally, children become hooked on cigarettes at any age (Masibo, et al., 2013). Cigarettes cause the worst of all drug habits found in the smoking of tobacco. The first step towards addiction may be as innocent as a boy's puff on a playground. On subsequent use the toxic chemical in cigarettes causes addiction, brain damage, impaired reasoning and will power (Masibo, et al., 2013). Use of cigarette is reported among adolescents whose parents face many challenges that limit their ability to provide for the physical and/or emotional needs. These challenges include drug addiction, scarce financial resources, unstable housing, familial history of substance abuse and lack of social support from family and friends. As of 2002, 50% of men and 9% of women in developing countries smoke, as compared with 35% of men and 22% of women in developed countries. China, in particular, contributes significantly to the epidemic in developing countries. Indeed, the per capita consumption of cigarettes in Asia and the Far East is higher than in other parts of the world, with the Americas and Eastern Europe following closely behind (Mackay and Eriksen, 2002).

Alcohol

Alcohol is the most available drug on the market and is not illegal to use or to be in possession of it. Alcohol abuse is one of the most difficult problems to treat because its use is accepted at any social function and abusers deny that they are addicted. Alcohol is a depressant and one becomes addictive when ingested large amounts on regular intervals. It slows down the activities of the nervous system that controls body functions, causes drowsiness, lack of concentration, and

slowness in thinking, impaired interpersonal relationships and leads to intoxication (Masibo et al., 2013). These authors pointed out that the dangers of too much alcohol consumption include, mental deterioration and lack of alertness, thus prone users to accidents, organ damage like liver, kidney. Other effects includes; blackouts, convulsions, severe psychological dependence, and may also damage the fetus if the abuser is a pregnant mother.

Alcohol and tobacco are similar in several ways: both are legal substances, both are widely available in most parts of the world, and both are marketed aggressively by transnational corporations that target young people in advertising and promotion campaigns. According to the Global status report on alcohol WHO (1999), the level of consumption of alcohol has declined in the past twenty years in developed countries, but is increasing in developing countries, especially in the Western Pacific Region, where the annual per capita consumption among adults ranges from 5 to 9 litres of pure alcohol, and also in countries of the former Soviet Union (WHO, 1999). To a great extent the rise in the rate of alcohol consumption in developing countries is driven by rates in Asian countries. The level of consumption of alcohol is much lower in the African, Eastern Mediterranean, and South-East Asian regions.

Marijuana

Marijuana is a hallucinogenic drug, which is smoked. It causes "an unnatural thirst or hunger, uncontrolled mood swings, talkativeness, impaired perception, disturbed judgment, mind disorders, a feeling of wellbeing and euphoria (pleasant feeling of excitement and of escaping reality) and it alleviates anxiety" (Masibo, et al., 2013). The dangers of the use of marijuana include, excessive aggression when combined with alcohol, accidents due to distorted perception, physical damage in the form of bronchial irritation, risk of lung cancer, chromosome damage, and ultimately brain damage. This is usually the first step of addiction before abusers move to hard drugs (Masibo, et al., 2013).

It has also been reported that “Globally marijuana is locally grown in some parts of urban and rural areas and the stuff is being used most by the adolescents and young adults as it is cheap and easy to get it” (Masibo, et al., 2013). Use of these illicit substances globally among adolescents is accompanied by a lot of damages to their physical, mental health and social well-being. Physical

evidence are quite obvious from street boys/girls and gangster mobs around most cities/streets (Masibo, et al., 2013).

Cocaine

Cocaine is an extremely addictive drug and is illegal to possess or deal with. The effects of cocaine appear almost immediately after only a single dose and disappear within minutes. It makes the user feel euphoric, energetic, talkative and mentally alert, especially to the sensations of sight, sound, and touch. It can also temporarily decrease the need for food and sleep. The short-term physiological effects of cocaine include constricted blood vessels, dilated pupils, increased body temperature, increased heart rate, and an increase in the blood pressure. Large amounts of cocaine may lead to bizarre unreliable and violent behaviors (UNODC, 2011)

Aerosols

These include glue, paint, paint thinners, aerosols and polish removers. The homeless and poor often abuse these substances as they create a false sense of satiate. These substances have a depressant effect and they damage brain inhaled. They cause slurred speech, inability to focus, stupor and seizures. The individual tends to move slowly as if lethargic and has a "drugged appearance". The individual sometimes tends to become hostile and aggressive (Lopez, 2001). Polish remover slows down the activities of the nervous system that control the body functions (WHO, 2002b).

2.2.5 Pattern of Psychoactive Substances Use (PSU) in Nigeria

There is no current data on the demographic pattern concerning substance use in Nigeria but the general perception is that most involved age group are the youths. Available data are center based and can't be generalized for the whole Nigerian population. In a comprehensive review of 28 psychiatric units in health facilities in Nigeria by Ohaeri and Odejide, a total of 10,396 patients were assessed and cannabis was the most prevalent drug of abuse (77%), followed by alcohol and amphetamines in the northern part of Nigeria, while in the south, cannabis (60.6%) was followed by heroin and cocaine. The prevalence of abuse was more in males than females (Adamson et al, 2010). In another review of drug abuse patients admitted at Yaba Psychiatric Hospital, Lagos, Nigeria, Lawal et al found the mean age to be 29.15 ± SD 5.9 years. They were mostly single, with formal education, heroin/cocaine were the most prevalent drugs of abuse

(84%), followed by cannabis (76.3%), then alcohol (22.5%). Adelekan (2000), in a another study reported that the patients were mostly single, males with formal education, with cannabis being the most commonly abused drug (53.5%) with over half of the cohorts below 30 years of age.

2.3. Knowledge of the health implications/consequences of psychoactive substance use

It is not out of place to reason that having knowledge of the health effects of substance use is essential for behaviour change. It is assumed that having adequate knowledge of the risks associated with substances use will reduce the rate at which student consume them. Lack of knowledge leaves people exposed to substances use while an awareness of the relevant facts allows them to choose healthy lifestyles through the ability to resist social pressure to use drugs (Roe & Becker, 2005). However, students' behaviour towards substances use as observed by Olaitan (2006) revealed the likelihood of poor or low awareness of the health effects. The author stated further that most adolescents lacked knowledge of the effects of substances they engaged in. The studies of Eneh and Stanley, (2004) and Oshikoya and Alli (2006) attributed the poor knowledge of the adverse health effects of substances abuse to inadequate drug education and lack of appropriate information about substances use.

A Spanish nationwide survey on drug use among secondary-school pupils found that the large majority of pupils (85.6%) considered themselves to be sufficiently informed about drugs, their effects and the problems associated with their use (Morales et al, 2008). In a study by Masibo, et al., 2013, in Tanzania, 99.3% of youth studied where found to have adequate knowledge on the use of psychoactive substances and its and health implications.

In another study by Oshikoya and Alli, (2006), 86.5% respondents claimed they were aware of and have adequate knowledge regarding the health effects of psychoactive substances. Of the listed health effects, majority of the respondents knew that substance abuse can affect the physical, psychological and social health of the users.

This finding was in accord with the report of Malara et. al (2006); Odejide, (2009) and Dechenla, Ranabir and Aparjita (2010). These researchers asserted that their respondents were highly aware of the health effects of substances use. The high level of awareness demonstrated by respondents may be attributed to regular advertisements on some substances in the media that continuous use

of such substances is injurious to their health. A good example is smokers are liable to die young that usually end the advertisement of cigarette smoking in Nigeria.

In another twist, some studies show the exact opposite of the findings of Oshikoya and Alli (2006). For example, Olaitan (2006); Oshodi et.al (2010) and Nwankwo et al (2013) all discovered that the knowledge of health effects of substance use was insufficient and that their respondents demonstrated poor knowledge of the risks associated with psychoactive substances use. The finding of the study revealed that a significant relationship exists between knowledge of health effects and substances use. This finding agreed with Shafiq et al (2006)'s discovery that the greater the knowledge of harmful effects of substance, the less the consumption of such substance. The negative significant relationship between knowledge of health effects and substances use was in line with Ndom, Igbokwe, and Ekeruo, 2012, but Eneh & Stanley (2004) and Raute et al. (2011) found out that the awareness of the detrimental effects of substance on the health of the user did not prevent students from using substances . Many studies have also established a positive correlation between the frequency of drug abuse and knowledge of the consequences.

A capsule review of literature showed a divergent view as to whether the knowledge regarding the consequences of substance use among adolescents and young adults is enough to prevent them from initiating and continuing its use. This is a question that needs to be answered and determined empirically.

2.4. Perception of the health implications/consequences of psychoactive substance use.

In a study to examine the perception of substance use amongst Nigerian undergraduates by Oshikoya and Alli (2009), 807 students were surveyed, 58.9% of the respondents had a positive perception of the health implications of substance abuse.

In similar situation, Masibo et al, (2013), documented that 93.5% of their respondents are of the perception that PSU is unacceptable, 98.3% of respondents are of the perception that PSU can hinder progress in life while 96.3% will not advice their friends to use PSs. Many (56%) of the respondents do not perceive PSU as leading to negative health implications. 20% of respondents

do not perceive PSU as a risk factor in motorcycle accidents, and 46 % believe that use of PSU is not proper before work and 47% believe PSU can cause liver problem. The mingling of motorcyclists' with peers whose ideology of psychoactive consumption is at variance with its consequences could contribute to the observed attitude highlighted by the motorcyclist in relation to psychoactive consumption. In addition, the existence of high level of ignorance about the negative consequences of psychoactive substances consumption reflects motorcyclists' access to inaccurate information being disseminated by various existing media regarding the consequences and outcomes of consuming psychoactive substances

2.5 Factors responsible for PSU

Drugs are abused for various reasons. The earlier studies of Idowu (1987) confirmed that search for pleasure motivates drug abusers to alter their state of consciousness. The studies confirmed that people abuse drugs for the enhancement of good feelings and used it as a means of coping with stress of life. Idowu (1987) advanced these reasons for substance abuse in Nigeria: Intra-individual reasons, Sex, Physical or mental illness, Personality-make up, Extra-individual reasons, Dependence producing nature of the drugs and Availability. Intra-individual reasons pertained to the individuals and these include age, sex, physical and mental illness. (Odejide, 2006) and Idowu (1987) have shown that young people especially adolescents and young adults are most prone to drug abuse. A survey carried out by National Drug Law Enforcement Agency (NDLEA) revealed that they abuse drugs as early as age eleven (for prescribed drugs) and age 16 (for narcotic drugs). The reasons advanced by these students are: to feel on top like adults, to feel good, to get excited, to be like friends and to be like stars. Odejide (2000), Idowu (1987) have shown that drug abuse is sex biased as more males than females abused drugs. However, (NDLEA, 2009) stated that there are as many males as there are females who abuse drugs. Individuals with physical or mental illness are more likely to use drug than those without such illness. These individuals are more pre-disposed to over use of or over dependence on drugs to control and treat such ailments. The use of these drugs outside medical prescription constitutes drug abuse.

Individuals differ in their makeup and in the way they respond to situations and events in their environment. The ability to tolerate or yield to stress, frustrations, pain and discomfort determines whether an individual will become a drug abuser or not. It could be inferred that drug abusers are usually weak and unable to cope with stress, pain or discomfort. Thus, drugs foster a sense of relaxation and sedation which help abusers to escape the reality of environmental stress, such as urbanization, the pressure to get ahead in school and business, unfair distribution of income, poverty and family problems.

There are external reasons that act on the individuals. Drug abusers usually described such factors as those of peer pressure, the urge to be curious and wish to experiment, unemployment, idleness, unstable family conditions, for example, death, separation, boredom, poverty, affluence and the bustles of city life. Extra individual reasons include the need to get rich quickly (drug trafficking), to enhance performance (especially among the athletes and artists) and drug use in the family (NDLEA, 1991). Dependence producing natures of the drugs are reasons which have to do with the drugs. A drug continually used for a period produces dependence, thus making it difficult for the user to quit the tranquil sedatives and analgesics are the most common dependence producing drugs.

2.6 Risk factors for substance abuse

A question of central importance is, what factor determine who remain a casual user and who progresses to abuse? The consensus is that many factors contribute to substance use and abuse (Glantz and Pickens, 1992). No single factor could be defined as solely responsible for the abuse of drugs but the following are some of the causes of young people vulnerable to drug abuse in Nigeria. (Oshodi, Aina, and Onajole, 2010; Igwe, et al., 2009; Abudu, 2008; Oluremi, 2012; Desalu, et al., 2010; Ajibulu, 2011; Henry, Smith, and Caldwell, 2007).

Curiosity and Desire to find out the Effectiveness of a particular drug: Curiosity to experiment the unknown facts about drugs thus motivates youth's into drug use. The first experience in drug abuse produces a state of arousal such as happiness and pleasure which in turn motivate them to continue. Sometimes youth's takes drugs in order to find out their effectiveness of a particular

drug and if they find out that the drug is effective they continue using such drugs. (Ajibulu, 2011)

Peer group Influence: Peer group pressure plays a major role in influencing many youth's into drug usage. This is because peer pressure is a fact of teenage and youth's life. In Nigeria, and other parts of the world, one may not enjoy the company of others unless he conforms to their norms. (Igwe, et al., 2009)

Environment: Many young people live in communities which suffer from multiple deprivations, with high unemployment, low quality housing and where the surrounding infra-structure of local services is splintered and poorly resourced. In such communities drug supply and use often thrive as an alternative economy often controlled by powerful criminal groups. As well as any use that might be associated with the stress and boredom of living in such communities, young people with poor job prospects recognize the financial advantages and the status achievable through the business of small scale supply of drugs. (Oshodi, Aina, and Onajole, 2010).

Promotion and Availability: There is considerable pressure to use legal substances. Alcohol and pain relieving drugs are regularly advertised on television. The advertising of tobacco products is now banned, but research from Strathclyde University published by Cancer Research concluded that cigarette advertising did encourage young people to start smoking and reinforced the habit among existing smokers. Despite legislation, children and adolescents have no problems obtaining alcohol and tobacco from any number of retail outlets. Breweries refurbish pubs with young people in mind, bringing in music, games, more sophisticated decor and so on while the general acceptance of these drugs is maintained through sports sponsorship, promotions and other marketing strategies. (Oluremi, 2012; Desalu, et al., 2010)

Enjoyment: Despite all the concerns about illicit drug use and the attendant lifestyle by young people, it is probably still the case that the lives of most young people are centred on school, home and employment and that most drug use is restricted to the use of tobacco and alcohol. They may adopt the demeanor, fashion and slang of a particular subculture including the occasional or experimental use of illegal drugs without necessarily adopting the lifestyle. Even so, the evidence of drug use within youth culture suggests that the experience of substances is

often pleasurable rather than negative and damaging. So probably the main reason why young people take drugs is that they enjoy themselves.(Oluremi, 2012; Desalu, et al., 2010)

Parental factors: The youths today are faced with undue pressure from parents on high academic performances, and those who are not able to meet such expectancies resort to drugs. Parental substance use also contributes as well as when parent show Positive attitudes towards substance use and beliefs about harmlessness of substances. Some parents also show some degree of tolerance of adolescent substance abuse. In other instances, people use substances where there is lack of attachment between parents and child or lack of parental involvement with child's life, when children are left without adequate supervision/discipline. These problems initialize and increases drug usage.

Socio-economic Status of the Parents: Socio-economic status of the parents entails direct costs which are very important to families; particularly this is related to every aspects of the family's life and caring to children. The implications of family relationship on students have remained an alarming factor to the total life of the children. By implication the socio-economic status of the parents may influences adolescents to abuse or not to abuse drugs even if the parents have very low income, low income average, high, or very high income.

Pathological family background: broken homes, illegitimate relationships, alcoholic parents or parent's involvement in antisocial and illegal activities.

Urbanization: Many youths are brought up in settings of rapid disorganized socialization and unplanned urbanization.

Peer influence: Friends lure themselves into use and abuse of drugs by using sweet but untrue words to make the drugs look good to the impending new convert.

Youthful problems such as poor school or academic achievement, level of tolerance and inability to face realities of life can also be a cause of drug abuse.

2.7 Consequences/dangers of psychoactive substance use

Mostly, people use psychoactive substances because they expect to benefit from their use, whether by pleasure or by the avoidance of pain, including social uses. But using psychoactive substances also carries with it the potential for harm, whether in the short run or in the longer term. Umoh (1992) stated that any usage of drugs has negative effects. The smoking of Indian hemp could lead to brain damage and psychological effects include false confidence that makes the engage in dangerous activities such as criminal activities. Hallucination and delusion are also common. Substance abuse co-morbidity has also been associated with generally poor clinical outcomes among severely mentally ill individuals in the community. Violence committed by individuals with severe mental illness living in the community has become an increasing focus of concern among clinicians, policy makers, and the general public (Swartz, Swanson, Hiday, Borum, Wagner, and Burns, 1998).

The main harmful effects due to substance use can be divided into four categories. First there are the chronic health effects. For alcohol this includes liver cirrhosis and a host of other chronic illnesses; for tobacco taken in cigarette form, this includes lung cancer, emphysema and other chronic illnesses. Through the sharing of needles, heroin use by injection is a main vector for transmission of infectious agents such as HIV and hepatitis B and C virus in many countries. Second there are the acute or short-term biological health effects of the substance. Notably, for drugs such as opioids and alcohol, these include overdose.

Also classed in this category are the casualties due to the substance's effects on physical coordination, concentration and judgment, in circumstances where these qualities are demanded. Casualties resulting from driving after drinking alcohol or after other drug use feature prominently in this category, but other accidents, suicide and (at least for alcohol) assaults are also included. The third and fourth categories of harmful effects comprise the adverse social consequences of the substance use: acute social problems, such as a sudden break in a relationship or an arrest, and chronic social problems, such as defaults in working life or in family roles. These last categories are important in relation to alcohol and many illicit drugs, but

are poorly measured and mostly excluded from measurements of health effects such as in the Global Burden of Disease (GBD).

The probability of the occurrence of these categories of harmful effects also depends on how much of the substance is used, in what forms, and with what patterns of use. These aspects of use may be thought of as linked to the different kinds of health and social problems by three main mechanisms of action (see Fig. 2.1). One mechanism concerns the direct toxic effects of the substance, either immediate (e.g. poisoning) or cumulative over time (e.g. cirrhosis). A second mechanism concerns the intoxicating or other psychoactive effects of the substance. A traffic accident may result, for instance, from the fact that a car driver is under the influence of sedatives. A retail store employee may be intoxicated at work after using cannabis, and because of this, may be fired by the manager. The third mechanism concerns dependence on the substance. Substance dependence–or dependence syndrome –is the current technical terminology for the concept of "addiction". At the heart of this concept is the idea that the user's control over and volition about use of the drug has been lost or impaired. The user is no longer choosing to use simply because of the apparent benefits; the use has become habitual, and cravings to reuse mean that the user feels that the habit is no longer under control. The user's dependence is thus seen as propelling further use despite adverse consequences which might have deterred others who are not dependent, from further use.

The link between substance use and harm in a particular case may, of course, involve more than one of the three mechanisms. Benzodiazepines may be involved in a case of suicide, for instance, both through the user's despair over the disruption brought to his or her life by dependence on the drugs, and as the actual means of suicide through overdose. However, the mechanisms can also operate alone. It is important to keep in mind; moreover, that dependence is not the only mechanism potentially linking substance use to health and social harm.

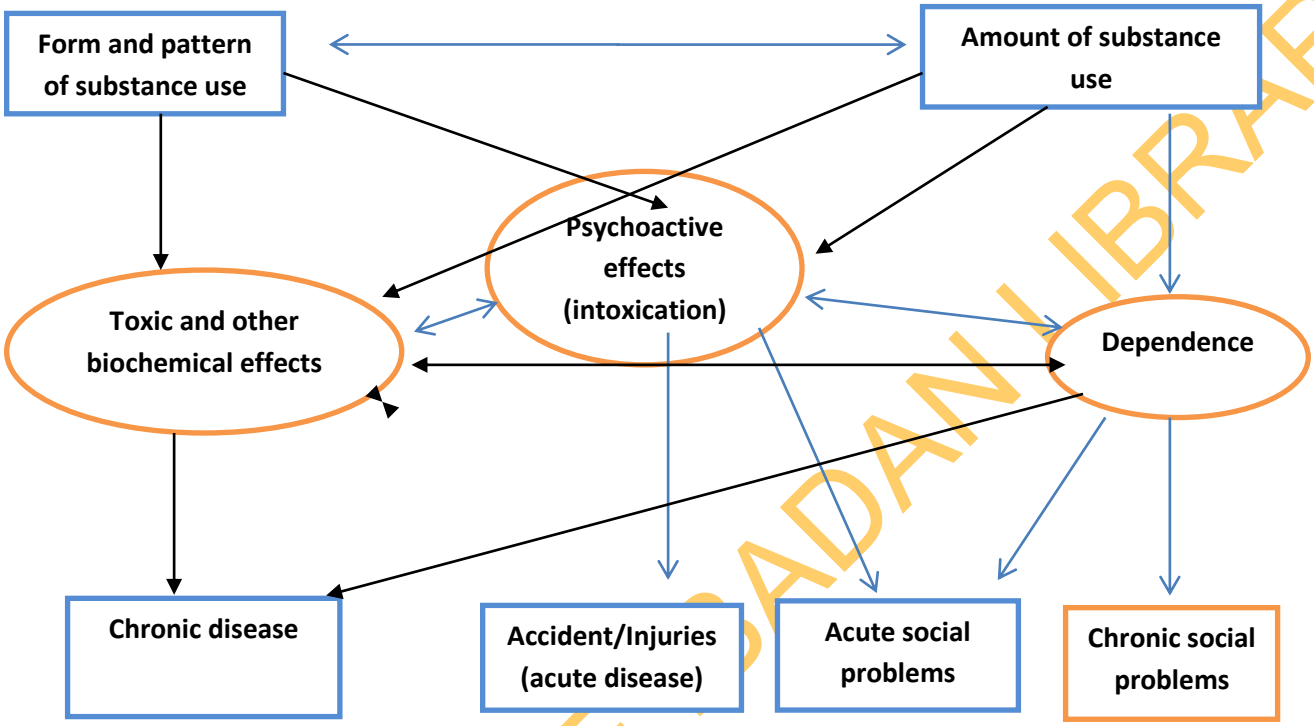


Fig. 2.1 Mechanisms relating psychoactive substance use to health and social problems

Source: adapted from Babor et al., 2003.

2.8 Nigerian Drug Laws and Policies

The worsening of Nigerian involvement in substance abuse and international drug trade cannot be attributed to lack of drug policy and laws because Nigeria happens to have one of the most drastic drug laws in the world. The Indian hemp decree of 1966 stipulated that cultivation of cannabis attracts death penalty or 21 years jail term. Cannabis exportation was punishable by 10 years of imprisonment. A stiff penalty of at least 10 years in jail was reserved for those found smoking or in possession of the drug and cocaine/heroin trafficking attracted a death penalty. This law was amended in 1975 and less severe penalties were instituted. For example, the death penalty was abolished and the punishment for cannabis smoking was reduced to six months and/or a fine. The death penalty was later re-introduced in 1984 through the Special Tribunal Decree by a new military government then to emphasize their seriousness in clamping down offenders. At least three cocaine traffickers were killed by firing squad before the law was repealed and replaced with life imprisonment in 1986 (Obot, 2001).

The most significant drug law in Nigeria has been the National Drug Law Enforcement Agency (NDLEA) Decree of 1989, a response to the United Nations Convention against Illicit Traffic in Narcotics Drugs and Psychotropic Substances of 1988. Among many of its provisions, the NDLEA Decree set up an agency of the same name and listed the punishment for drug offences, including the forfeiture of assets of arrested persons. In this Decree, trafficking of cocaine, LSD, heroin, or similar drugs is punishable by life imprisonment, while possession or use attracts a sentence of 15 years but not exceeding 25 years (Obot, 2001). One of the drug policies implemented by Nigerian National Drug Law Enforcement Agency (NDLEA) was the Drug Control Master Plan (DCMP) launched in 1999 with the aim of achieving a drug free society (Obot, 2001).

In 2008, the NDLEA recorded the seizure of 335,535.34 kilograms of cannabis, 530.40 kilograms of psychotropic substances, 365,549 kilograms of cocaine and 11.61 kilograms of heroin (United Nations Office on Drugs and Crime, 2011). Despite all policies and efforts by the Nigerian Government to combat drug trafficking, Nigeria was for many years regarded as the major hub for drug-trafficking and money laundering and transit point between the world's western and eastern drug hemispheres by the International Narcotics Control Strategy Report

(Obot, 2001). Niger state does not have any State specific law on substance abuse. However, the national drug laws and policies have been accepted and are being used by the state.

2.9 Mechanistic Classification of Psychoactive Substances

The various psychoactive substances have different ways of acting in the brain to produce their effects. They share similarities in the way they affect important regions of the brain involved in motivation, and this is a significant feature with regard to the theories of the development of substance dependence. However, there are mechanisms which are common to some of them as briefly descrybed: they act through binding to receptors for which there are endogenous ligand. They can competitively bind to these receptor sites thereby causing an agonistic action identical to the effects that are recognized for the endogenous molecule, a potentiated or antagonistic action, e.g. Cannabis bind to endocannabinoid receptors in the brain and other parts of the body for which there is anandamide, a naturally occurring ligand; Nicotine binds and activates nicotinic acetylcholine receptors; the opiates bind to the opioid receptors to which naturally occurring peptides, endorphins and enkephalins, bind to, and alcohol, benzodiazepines and barbiturates interacts with gamma amino butyric acid (GABA) causing an inhibitory effect. Secondly, psychoactive substances affect the process of neurotransmission by inhibiting reuptake causing the accumulation of neurotransmitters in the synapse or cause the release of neurotransmitters for example; cocaine and amphetamine type stimulants cause the release or prevent the uptake of the biogenic amines at the synaptic area. Thirdly the psychoactive substances as a group, to various degrees cause the release of dopamine in the nucleus accumbens of the brain. The nucleus accumbens is a very important brain area involved in motivation and learning, and signalling the motivational value of stimuli (Robbins and Everitt, 1996). This mechanism partly accounts for the positive reinforcement of the drug use experience, the persistent substance-seeking and maladaptive behaviour associated with drug use (Robbins and Everitt, 1996).

2.10 Commercial use of motorcycle in Nigeria

There has been an increase in the use of motorcycles for commercial public transportation in rural and urban areas in Nigeria (Johnson and Adebayo, 2011). Commercial motorcycling has also served as a means of gainful employment to quite a number of people due to the increase in the rate of unemployment. As mentioned by Owoaje, Amoran, Osemeikhain, and Ohnoferi, (2005), commercial motorcyclists are popular in Nigerian cities and states, and are called by different names. These are: Kabu-Kabu in Sokoto, Achaba, in Bauchi, Jos, Yola last flight in Benin City. It is also expressed as "going" in Lokoja, Kafanchan, Akauke or Alalok in Cross Rivers and Akwa Ibom States (Odumosu, and Yaro 2012; Ogunsanya and Galtima, 1993).

The emergence of commercial motorcycles is due to inadequacies of mass transportation systems in the country. Bad roads with the associated traffic congestion, as well as the ability of these motorcyclists to meander through traffic jams have encouraged the patronage of this mode of transportation. The other means of transportation are unable to access these roads (Ngim and Udosen, 2007; Okojie, Omuemu and Ighodoro, 2006). In Nigeria today almost all income groups excepting the very elite commute from one spot to the other within cities and semi urban areas by the motorcycle. It has gradually grown to become the most popular means of intra-city transportation nationwide (Nzegwu, Aligbe, Banjo, Akhiwuand and Nzegwu, 2008). In the 1970s motorcycle was used as private means of transport. Many literatures stated that the utilization of motorcycle for commercial purposes was not known until late 1980s when the first attempt was made in Commercial Motorcycle Riders town near Benin, Edo State. It was in recognition of this historical perspective that the motorcycle transport business is widely named after Commercial Motorcycle Riders town. Awareness of motorcycle transport business did not spread across many Nigerian states and cities until 1998 and thereabout. As of now motorcycle is considered a major means of transportation system in Nigeria. (Ichikawa 2003)

The motorcycle is regarded as an indispensable means of transport in Nigeria, both in rural and urban communities. This is because some communities are inaccessible through motor vehicles due to bad roads while some are accessible through route paths only. Ichikawa (2003) viewed that business people prefer riding Commercial Motorcylce Riders as it is the fastest means of transport during traffic jam in cities. In developing countries such as China, India, Nigeria,

Ghana and Kenya, the most common means of transportation for the low income groups of people is the motorcycle. The popularity and widespread acceptance of motorcycle has rapidly risen in recent years. In Nigeria, Ghana, Kenya and China the use of motorcycle by private individuals had existed for a long time. Although many used it for private purposes, few made use of it to transport farm produce and to hawk goods such as bread, medicine, newspapers (Oladipo, 2012). A study on the impact of motorcycles as a means of commercial transportation in Nigeria reported that the commercial use of motorcycles began in Calabar, Cross River State, in early 1970s (Oladipo, 2012). By Nigerian law, motorcyclists are to carry only one passenger at a time but sometimes in violation of the law, they do carry more than one passenger.

2.11. Prevalence of Motorcycle Accident

Several studies have shown the proportion of motorcycle accidents among road traffic injuries to be between 15 and 27%. However, a study carried out in Singapore and Vietnam reported higher proportion of motorcycle accidents of 49.1% and 62% respectively. Both in developing and developed countries, the peak age for motorcycle associated injury are the late teens and early to late 20s and males are more affected than females. According to (Oladipo, 2012) majority of motorcycle accidents injury victims had the mean age of 32.5 years and (96.1%) of them were male. A similar study carried out in Finland, reported that 40% of injured motorcycle riders were between 16-18 years (Peden, McGee and Sharma, 2002).

In looking at the socioeconomic pattern of riders aged 17-19 years, the rate of injury (both minor and severe) in lower income groups was 2.5 times greater than for those in higher socio-economic groups. More recent studies have shown higher proportions (41% to 62%) of those who are involved in motorcycle accident injuries to be riders. Riders involved in road traffic accidents are likely to be seriously disadvantaged due to lack of available safety equipment such as protective clothing, lower limb protectors, safety shoes and motorcycle helmets, trauma to the exposed extremity and head account for a significant proportion of these injuries.

Among these mechanisms the collision between a motorcycle and motor vehicle is the commonest reported 41% -72.3%. In Uganda it was observed that the majority of motorcycle accident injury victims were self-employed individuals. Furthermore, the accident rate is high,

2,838 deaths because of traffic accidents, seven per cents (7%) were due to motorcycle. In Rwanda, 308 deaths from traffic accidents, 16% were from motorcycle and in Kenya 2,893 deaths, 1% due to motorcycle. The percentage in Kenya, is low because helmet laws and its enforcements. The study of Asogwa, (1990), from Nigeria also reported higher proportion of motorcycle accident of 54%. According to the Commander, Federal Road Safety Corps (Corps Marshal) Nigeria, declared in April 2009 that 5,157 deaths occurred through road traffic accidents in the last 3 years out of 18,308 accidents reported while 13,251 had different forms of injuries. Statistics show that while developing countries own only 32% of the world's vehicles, they account for 75% of annual accident fatalities (WHO, 2002).

A factor responsible for the increase in road traffic accident includes human, vehicle and road factors. These deaths are mainly coroner cases in Nigerian Law and our courts are recording more litigation cases resulting from road traffic accidents. Nigeria is ranked 191 out of 192 countries in the world with unsafe roads, with 162 death rates per 100,000 (Transparency Nigeria, 2011). The high rates of involvement of commercial motorcycle into accidents could be attributed to reckless driving, drunk-drive, abuse of traffic rules and bad road conditions.

2.12 Prevalence of substance use among commercial motorcycle riders in Nigeria

The motorcyclists spends more than 10 hours daily (Alti-Muazu and Aliyu, 2008; Salako, Abiodun and Sholeye, 2012) on the road with direct exposure to various environmental hazards including road traffic accidents and associated accidents injuries of various levels of severity. The long hours they spend on the road daily brings additional demand for extra energy to perform their work. Thus, CMRs tend to resort to PSU to boost their energy requirements for optimal performance. Alcohol consumption is well known to impair driving and riding performance and is implicated more frequently in fatal crashes than non - fatal crashes (Siskind et al. 2011). Additionally, motorcyclists are involved in crashes more often at lower BAC than car drivers (Sun, Kahn and Swan, 1998). Several studies have shown impairment at motorcycle riding under the influence of low dose (≤0.08%) blood alcohol concentration (BAC). According to N. Haworth et al., (2008) the factors contributing to crush occurrence and injury related to motorcycle accidents include: Being young, Inexperience, riding a borrowed motorcycle,

Consumption of alcohol, curves, Slippery or uneven surfaces In Nigeria, motorcycle accidents are said to be caused by over-speeding, wrong overtaking, bad roads, sudden mechanical defects and alcohol intake as major factors.

Use of alcohol, cigarette smoking, and psychoactive substance abuse impair the judgment of the drivers and their ability to correctly interpret events (Ngim and Udosen, 2007). Alcohol use is a risk factor for road traffic accidents and fatal injuries (Mir, Khan, Ahmed and Abdul Razzak, 2012). Evidence concerning alcohol related motorcycling accidents is mixed. Some studies have shown that only a minority of motorcycle accidents are alcohol related. However, other studies too have shown that a high proportion of motorcycling accidents are alcohol-related (Sexton et al, 2004). A study conducted by Elliott et al, (2003) on alcohol consumption among the motorcyclists reported that 32% of motorcyclists were riding under the influence of alcohol is at the risk of to endanger themselves on the road and to be involved in an accident at higher speeds. A study conducted by Oginni et al, (2007) also found that 30% of motorcyclists were riding under the influence of alcohol.

The various reasons for substance use include: to enhance performance while driving, keeping awake, suppression of fatigue, and peer group effect are additional factors influencing psychoactive substance use among motorcycle riders (Ngim and Udosen, 2007; Alti-Muazu and Aliyu 2008; Odejide and Olabisi, 2004). The FRSC have given clear instruction on road safety in a booklet 2008 edition, Nigeria Highway Code; that motorcyclists and motor vehicle should not drive or ride after the consumption of alcohol (FRSC, 2008). Maximum blood alcohol level for riders and drivers is 80mg/100mls or 0.08% of blood alcohol content (BAC). According to FRSC Act 2007, alcohol affects vision, judgment; it also reduces coordination and slows down reaction. It also reduces riding stability even when taken below the legal limit so everybody who drinks alcohol should not ride or drive. i.e (do not drink and drive). However, given what is known about the effects of alcohol, the demands of motorcycle riding, and the vulnerability of motorcyclists to injury, it is obvious that riders are extremely vulnerable to the effects of alcohol. Finally, it has been well established that alcohol related motorcycle accidents occur more frequently at night, at weekends, in rural areas and as single vehicle accidents. In a study by Adako (2007) it was posited that in more than half of motorcycle fatalities, alcohol use was the

key ingredient, and that significantly higher levels of alcohol use are attributable to motorcycle riders than car drivers. Indeed, the leaders of commercial motorcyclists associations in Nigeria admitted complicity of their members regarding use of intoxicants and that most commercial motorcycle accidents were traceable to use of intoxicants (Adako, 2007).

2.13 Conceptual Framework

The precede model.

PRECEDE model (Green and Kreuter, 1999) was used to facilitate the design of the study. It was used to select some key or pertinent variables that are related to the research questions and objective for measurement.

PRECEDE stands for Predisposing, Reinforcing and Enabling Causes in Educational Diagnosis and Evaluation. The model was developed by Green Kreuter. It has served as a conceptual framework in health education planning aimed at diagnosing the health problems of a community, understanding the factors that influence the people's behavior and developing intervention to promote healthy behaviour (Green and Kreuter, 1999). The model consists of three groups of factors namely predisposing, enabling and reinforcing factors which can influence behavior or serve as behavioural antecedents.

In this model, three factors influence behavior, they are:

Predisposing factors

The predisposing factors are those factors that make any given health-related behaviour more (or less) likely to occur, in other words they are behavioral antecedent factors that motivate or provide a reason for behavior. They are factors which must be present before behavioural decision takes place, (antecedents' knowledge, perception, attitude, values, level of education, readiness to change, awareness, and belief of motorcyclists about PSU, e.g. Does the person have knowledge about the benefits and dangers of substance use? Poor knowledge of the dangers of drug use will normally bring about wrong/ perceptions of the act which will in turn encourage drug use.).

Enabling (resources) factors are the substances available, accessible and affordable. These are factors subsequent to behavior that provides continued incentives or reward for the behavior and contributes to its persistence or perpetuation. It includes knowledge, attitudes and behavior of

friends, peers, family members, relationships or groups, opinion leaders (e.g. religious, political & traditional), towards substance use. Others are, time, skills, place, health service, laws, policies and procedures. They are mainly environmental in nature.

`Reinforcing (influence of others) factors

These are factors that are related to the influence of significant others such as peers, parents, other relations, religious bodies, colleagues, and health workers. For example, do other riders also use drugs? These are antecedents that enable a motivation to be realized. e.g accessibility and government policies. For example are the substances readily available, are there enough policies in place to discourage the use of drugs? Such policies may include educational, or literacy programs put in place to educate the youth about the dangers of drug use, and the provision of adequate socioeconomic and medical support for people already with substance use problems. Access to basic social amenities such as employment opportunities, housing, youth friendly clinics and other recreational facilities will definitely help to reduce the prevalence and consequences of substance use.

For the purpose of this research, the frame work was adopted to identify factors that promote and reinforce the behaviors to use psychoactive substances in by commercial motorcycle riders in Minna metropolis.

The detail of the application of the **PRECEDE** are highlighted in figure 2.2

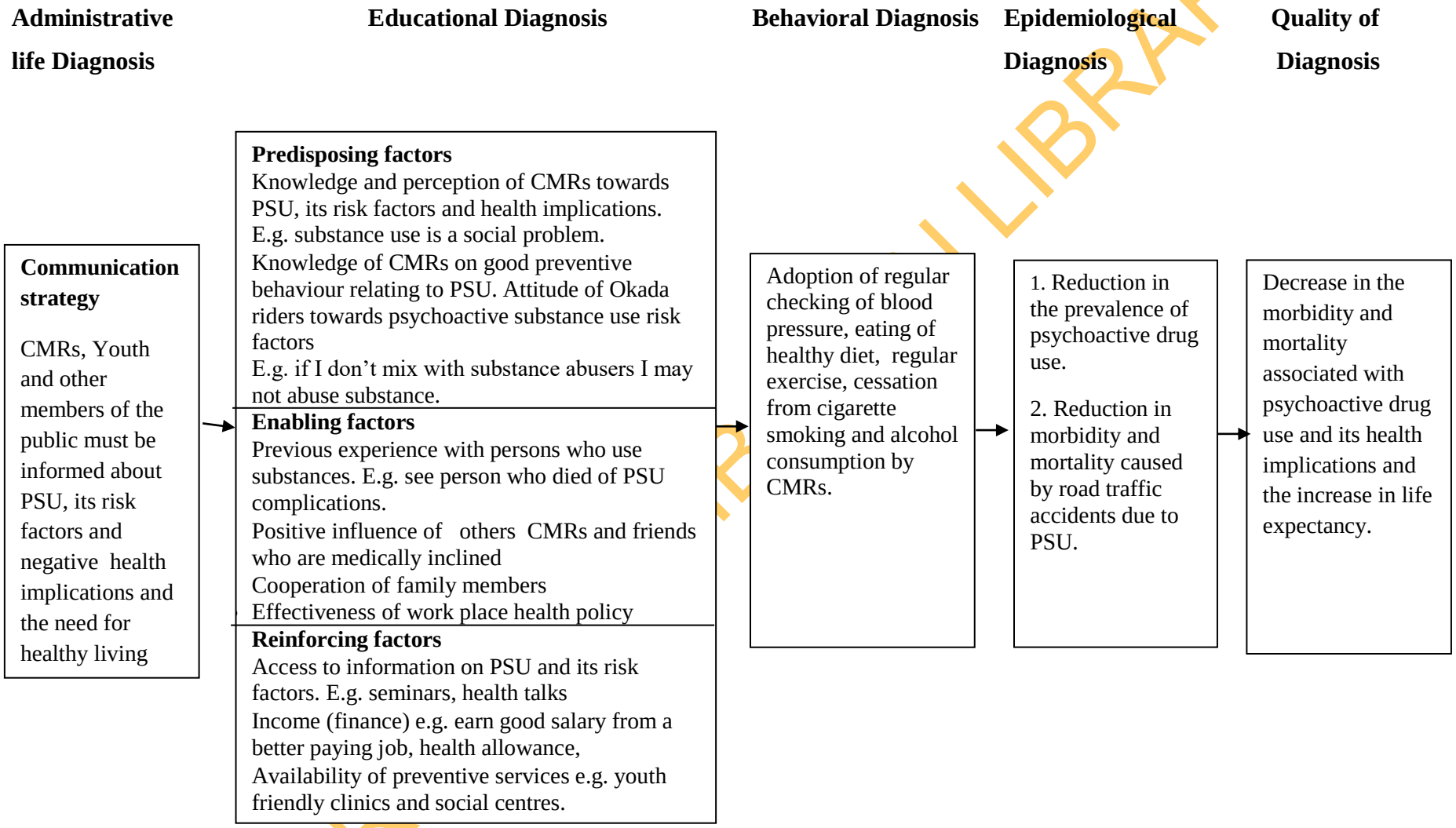


Figure 2.2: Schematic application of PRECEDE model to psychoactive substance use among commercial motorcycle riders.

Adopted from Green and Kreuter, 1999)

CHAPTER THREE

3.0 METHODOLOGY

This section deals with the research design, study population, sampling technique, methods and instruments for data collection, procedure for data collection and data analysis.

3.1 Study design

This is a cross-sectional study designed to assess knowledge, perceptions, factors influencing PSU and the prevalence of psychoactive substance use among commercial motorcycle riders in Minna metropolis, Niger State, Nigeria.

3.2 Research variables

The variables were categorized into two namely the independent variables and the dependent variables.

3.2.1 Independent Variables: The independent variables in the study include the socio-demographic characteristic of the commercial motorcycle riders such as age, marital status, level of education, and years of riding commercially.

3.2.2 Dependent Variables: The dependent variables on the other hand: knowledge of health implication of PSU by CMRs, and perception of the health implication of PSU by commercial motorcycle riders.

3.3 Scope of the study

The scope of the study was limited to the investigation of the knowledge of health implication of PSU by CMRs, perception of the health implication of PSU by CMRs, prevalence of PSU, and factors responsible for PSU among CMRs in Minna metropolis.

3.4 Description of the study area

The study was conducted in Minna metropolis. Minna metropolis is administratively divided into two Local Government Areas (LGAs) i.e. Chanchaga and Bosso LGAs created in 1976. Minna is the political headquarters of Niger state. Niger State is located in the Middle West Central of Nigeria with a total area of 76,363 square km (29,484 square miles) and is bounded by Kaduna State in the North East, Kebbi State in the North West, Kwara State in the South West, Kogi in the South, Zamfara in the North and the Republic of Benin in the West. The Federal Capital Territory, Abuja, is on the state's Southeastern border.

Minna metropolis is made up of 21 political wards (with Chanchaga and Bosso LGAs having 11 and 10 wards respectively) and 221 settlements with only a few hard to reach areas. The metropolis has a total projected population of 472,911 according to 2006 census with annual growth rate of 2.5%. The major ethnic groups in Minna are Gwari, Nupe, Hausa, Fulani, Yoruba, and Igbo. Also, there are other ethnic groups from various parts of the country residing in Minna. The major religions practised by residents of Minna are Christianity and Islam. It is made up of varied socioeconomic classes of people, with some high-brow and low-brow areas. There are about 69 government owned health facilities in Minna including one secondary health facility, one tertiary health facility and 67 primary health facilities. There are several privately owned health facilities where people can access health care services.

Being a city in north central Nigeria, Minna has one federal airport located in Maikunkele, a suburb of Minna. There is also an active railway line that is often used for transportation of goods and people across the length and breadth of the country. There are several road networks which link Minna with several parts of the country. There are also local roads that link Minna with several parts of the state. Major means of public transportation include shuttle buses, taxi cabs and commercial motorcycles. Commercial motorcycles make it possible for people to move from one part of the city to another especially the hard to reach areas or places where there are no good road networks. Commercial motorcycles are often preferred by many in situations where there are road gridlocks and scarcity of taxi cabs especially during fuel scarcity, morning rush hours, and late at night.

Based on available records from the leadership of the Amalgamated Union of Commercial Motorcycle Riders Association of Nigeria (ACCOMORON), there are about 19,900 motorcycle riders in Minna. Thus, Minna can be said to have a huge numbers of commercial motorcycles. A complication to this is the reform of the past FCT administration under the leadership of el-Rufai which led to the ejection of motorcycle riders from the FCT. Minna being a close city to Abuja further witnessed massive increase in the numbers of commercial motorcyclist. In Minna, the State governor cried out about the alarming rate of increase in the abuse of illicit substances especially by CMRs, (Francis, 2008). Another finding from a recent rapid situation assessment conducted by NAFDAC in Minna and other town across the country indicates a very high prevalence of substance abuse by youths and especially the commercial motorcycle operators.

3.5 Study population

The study population consists of CMRs in Minna metropolises who were members of the Amalgamated Commercial Motorcycle Riders Association of Nigeria (ACCOMORON) and their officials. By their records there are a total number of 19,900 registered commercial motorcycle riders within the metropolis.

3.6 Inclusion criteria

Participants involved in the study were CMRs who were registered members of the CMRs union and had motorcycle riding as their main source of income.

3.7 Exclusion criteria

Any motorcycle rider not registered with motor cycle riders union or not plying his trade within the metropolis as at the time of the study was excluded.

3.8 Sample size determination

For this study, the sample size was calculated using the formula

$$n = \frac{z^2pq}{d^2}$$

n = sample size

z = standard normal deviate at 95% confidence interval = 1.96

P= Prevalence of PSU among CMRs in Zaria, Northern Nigeria. (Alti-Muazu, 2008)

q=1-p=100-59.0=41% d= margin of error set at P = 0.05

$$n = \frac{1.96^2 \times 0.59 \times 0.41,}{0.05^2}$$

N = 371.7713 approximately equals to 372.

The sample size (N) was adjusted to 500 to make room for improperly filled questionnaires, attrition, non response and further improve the generalization of findings.

3.9 Sampling techniques

A multi-stage sampling technique involving four stages was used in selecting respondents for the study.

Stage one

The study area (Minna metropolis) was stratified into two based on the two LGAs in the metropolis i.e. Chanchaga and Bosso LGAs.

Stage two

Proportionate sampling was used to determine the number of CMRs selected from each LGA (see table 3.1 for details).

Stage three

Participants were selected from all the operating units for each LGA proportionately to make up for the sample size of 500. A list of registered CMRs in each of the operating unit was obtained from Amalgamated Commercial Motorcycle Riders Association of Nigeria (ACCOMORAN) office or chairman of each operating unit. Where there was no list available, an average estimate of the number of CMRs that usually meeting was considered as the number of CMRs per unit.

Stage four

Appropriate numbers of eligible participants in each operating unit were selected using simple random sampling of balloting procedure.

Table 3.1: Distribution of Commercial Motorcycle Riders in Minna Metropolis.

S/N	LGA	Number of CMs operating units in LGA	Number of CMRs in LGA	Proportion of respondents selected from each LGA
1	**Chanchaga**	42	12,680	$\frac{12680}{19,900 \times 500}$ = **319**
2	**Bosso**	28	7,220	$\frac{7220}{19,900 \times 500}$ = **181**
	TOTAL	70	19,900	**500**

Source- Record obtained from ACCOMORAN, Minna branch.

3.10 Instrument for data collection

Semi-structured Questionnaire

The collection of the quantitative data was done by means of a semi-structured questionnaire. The design of the questionnaire was done after a review of literature. The questionnaire was organized into six sections labeled A- F (see appendix II)

Section A was used to assess respondents' socio-demographic characteristics. Information on respondents' level of knowledge of the health implications of psychoactive substances use was documented using questions in Section B. The respondents' perceptions relating to the health implications of psychoactive substances use were assessed using questions in Section C. The prevalence of psychoactive substances use among commercial motorcycle riders was assessed using questions in section D. Section E contained questions that were used to determine the perceived factors responsible for psychoactive substances use among commercial motorcycle riders. Section F was used to document the consequences of psychoactive substances use among commercial motorcycle riders.

The questionnaire was written in English and also translated to Hausa for ease of communicating effectively with those who did not understand English (see appendix II and III) for English and Hausa version of the questionnaire. Relevant literatures were consulted in develop'ing the questionnaire. Furthermore, the instrument was subjected to the scrutiny of the researcher's supervisor and other experts in the Department of Health Promotion and Education.

3.11 Validity of the Instrument

The content validity of the instrument was ensured by using pertinent variables teased out from the reviewed literature. In addition, variables from the objectives of the study and the conceptual framework also guided inputs into the questionaire. Inputs of the Research Supervisor, experienced researchers in the Faculty of Public Health and senior colleagues were also used to enhance the face validity of the instrument. In addition, the questionannire was reviewed for quality and consistency. The questionnaire was translated in to Hausa which is the local language

of the target population (Appendix I11) by Hausa language expert. Another Hausa language expert translated it back to English language.

3.12 Reliability of the Instrument

In order to determine the reliability of the questionnaire, a pre-test was conducted. Fifty commercial motorcycle riders were interviewed using the questionnaire (representing 10% of the actual sample size for this study) at Bida LGA, which shares similar characteristics with Minna metropolis. Both LGAs are urban settlements. Furthermore, they both share similar socio-cultural settings. In addition, the two locations have similar population of commercial motorcycle riders. The instrument was pre-tested to ascertain suitability and appropriateness to field situation, determine whether the questions were clear and simple enough for respondents' comprehension and determine the trend in the responses obtained and the amount of time it took to administer the questionnaire.

The questionnaires was cleaned, coded and entered into the computer. The reliability of the questionnaire was determined using the Cronbach's Alpha model technique of SPSS (version 15). The reliability correlation co-efficient of 0.87 was obtained, which indicated that the instrument was very reliable. The outcome of the pre-test was used to correct and modify questions which were not clear to respondents and those that were found to be irrelevant were removed and adequate spaces were provided for responses as well as skipping mechanism.

3.13 Recruitment and training of Research Assistants for the study

Recruitment of Research Assistants

Considering the wide geographical spread of this study; involving visits to 22 wards and spread across 70 motorcycle units in Bosso and Chanchaga LGAs of Niger State, it became necessary to recruit and train Research Assistants (RAs) who would help in data collection. A 7-man team of researchers comprising of the principal investigator was constituted. The following selection criteria was used to select the six (6) initial RAs for training with the aim to select five thereafter.

1. Educational qualifications of the assistants were at least Ordinary National Diploma (OND), B.Sc in a health and/or science related field.
2. The candidates were fluent in English and Hausa Language.
3. Interpersonal and good communication skills.
4. Report writing skills.
5. Ability to devote all hours to the research work while it lasts.

Training of Research Assistants

The research assistants were trained for two days 15th- 17th September 2010. A training manual, plan and timetable were developed and approved by the project supervisor for the training. A time table was drawn for this period of 3 hours 9a.m-12 noon daily at the education research center conference room, Bosso LGA, Niger State. The training commenced with introduction of the trainer or the principal investigator and trainees. The trainees received training materials. The sessions introduced them to the research study, objectives and methodology, role-plays on the data collection procedure (entry processes, seeking consent of potential cases for the study, signing of confidentiality assurance form and administration of questionnaire). The appropriate training methods and materials for facilitation were selected. These methods included a combination of largely active training methods such as participatory discussions, demonstration and return demonstrations, role-play and lectures to make the training participatory. Recapitulatory questions for monitoring and assessing trainees' comprehension were asked from time to time while demonstrations were used to transfer skills for administering questionnaire, report writing of findings, and especially for the correct interpretation of each item. The questionaire was revised with them during the training after which the RAs were equipped with copy of the instrument each to be taken home and read over for better understanding with aim of answering any burning question that may result the following day. The questionnaire was further reviewed to ensure the consistency in the numbering and the adequacy of the skip instructions. In addition, content and construct validity were reviewed during the training of research assistants to ensure uniform understanding and interptetation by all research assistants. The pretest was also an opportunity for them to practice how they would go about collecting the data, while the researcher watched to see how the exercise was being done and to make necessary correction(s).

Negotiations and logistic plans for data collection were discussed and stipends paid to RAs. The researcher facilitated the training. The facilitating team helped to assess and score trainees and based on the assessment scores, the final five research assistants were selected for the study. Each RA was assigned potential dates and units for data collection. They were directly supervised by the researcher. Each RA received a copy of the field manual, copies of the questionnaire, one copy of the ethical approval from the State Ministry of Health and writing materials all contained in a clear water proof bag. All RAs participated in the data collection for the pre-test of the questionnaire in Bida LGA, Niger State.

3.14 Data collection process

Semi-structured questionnaire

Data were collected using the semi-structured, questionnaire (see appendix II) with the help of five trained field assistants who were graduates of health related fields and vast in both English and Hausa languages. A total of five hundred (500) questionnaires were administered. The questionnaire was interviewer-administered; it was so designed because some of the respondents could not read or properly understand English. The administration of the questionnaire was facilitated by the researcher and five RAs.

All the 70 CMR operating units were visited and eligible participants were interviewed one by one usually in a conducive environment. In some cases where conducive environment was not readily available around the CMR operating units, a mutually agreeable venue, where privacy was guaranteed, was used for the interview. This was done to protect the privacy of respondents and to provide an opportunity for free disclosure of information. Permission to conduct the study was sought from the Local Government Primary Health Care Department and ACCOMORAN leadership in each case after the research process and objectives have been thoroughly explained. Informed consent of each participant was sought before the administration of the questionnaire. The purpose of the research, the possible risks that may be involved, time to be spent and the benefits of the research were explained to participants. The questionnaires were administered at the selected operating unit from 9.00am to 2.00pm for ten days. The administration of the

instrument was done either in English or in Hausa based on the preferred language of the respondents. Each completed questionnaires was checked by the researcher or the FA for completeness and accuracy.

3.15 Data management and analysis

The researcher took various steps including monitoring and supervision of the activities of the FAs and the entire process of data collection to ensure quality data were collected. Where problems were discovered, they were resolved immediately. All questionnaires were then collated, reviewed, sorted, and cleaned to ensure that integrity and quality of the data were not compromised.

Serial numbers were written on the questionnaires for easy identification and recall of any instruments with problems. A coding guide was developed after carefully reviewing the responses, and appropriate scoring done. The data was then manually coded by the researcher and entered into the computer. The questionnaires were stored in a place that was safe from destruction by water or fire and where unauthorized persons could not access them.

Data were entered into the computer using Statistical Package for Social Sciences (SPSS) version 17. Univariate data were summarized using frequency counts and percentages. Bivariate analyses of test of association were done using Chi-square and linear regression. Level of statistical significance was set at 0.05. The results are presented using tables, pie charts and bar graphs in chapter 4.

Respondents' knowledge on the substance abuse and its health implication were measured using a 20-point knowledge scale. Ten knowledge questions were asked and points allotted to each of the knowledge questions (2 points). Any response that was incorrect carried no point. (i.e zero point) The total knowledge score and the maximum obtainable score for each respondent was 20. The knowledge scores of ≤ 7, >7 -12, and > 12 were categorized as poor knowledge, fair knowledge and good knowledge respectively.

Respondent's perceptions of substance use were measured using a 20- point perception scale. Ten perception questions were asked, with each having options of three responses (in the form of agreed, undecided and disagreed) to elicit respondents' perception relating to psychoactive substance use. Respondents were expected to pick only one out of the three options, (i.e agreed, undecided, and disagreed). Some of the questions had "agreed" as appropriate response or answer, while others had "disagreed" as the appropriate responses. Appropriate responses or answers were awarded 2 points, inappropriate options or answer were awarded zero points. Undecided was not regarded as appropriate response or answere for any of the questions, thus awarded zero points. Scores obtained for each of the 10 questions were added up. Maximum obtainable score for each respondent was 20 points. Perception scores of ≤ 10 and >10 were categorized as negative and positive perceptions respectively.

3.17 Ethical considerations

The ethical principles guiding the use of human participants in research were taken into consideration in the design and conduct of the study. Ethical approval was provided by the Niger State Ethical Review Committee of the state Ministry of Health. Permission was obtained from the leadership of ACCOMORON both at the State, LGAs and operating units. Informed consent was obtained from the respondents by giving them an informed consent form to fill after explaining it to the best of their understanding. Participation in the study was made voluntary and informed consent was obtained from each participant involved in the study. Each participant was provided with information about the focus of the study, objectives of the study, study methodology, inconveniences that might be experienced and the potential benefits of the study to society. No identifiers such as names of participants were required and all information provided by respondent are kept confidential.

3.18 Limitations of the study

There was dearth of information in the literature on PSU among CMRs in Minna metropolis. This posed a serious challenge in respect of lessons which could be used to design this study. The problem was ameliorated through the review of literature on studies conducted in other states of the country and even outside Nigeria, in spite of their inherent limitations.

Some CMRs who had experienced PSU declined to participate in the research. This happened in spite of assurance that their identity would be protected and the results of the study would not harm their interest in any way. The fear of stigmatization, shame and possible punishment generally may have accounted for their reaction.

The 70 CMR operating units used in this study were solely those registered with ACCOMORAN. The generalization of the findings of this study is therefore limited to ACOMORAN sites only. Commercial Motorcycle riders not registered with ACCOMORAN or those who did not identify with an operating unit were excluded from the study and so this may affect generalization of the results. However, taken into consideration the scientific steps taken to carry out the study, it could be concluded that the results constitute a fair reflection of the phenomenon in Minna metropolis.

CHAPTER FOUR

RESULTS

4.1 Respondents' Socio-demographic Characteristics

A completion response rate of 100% (500 out of 500) was obtained with the questionnaire among commercial motorcyclist selected for the study. Table 4.1a shows the respondents' socio-demographic characteristics. The age of respondents ranged from 16-64 years with a mean of 27.8 ± 6.8 years. More than half (57.8%) of the respondents' were between the ages of 21-29 years and 48.6% had western education. Many (45.6%) were single and 30.9% were from polygamous family while slightly less than half (39.4%) of respondents were married. (See table 4.1a for further details). Respondents of the Hausa ethnic group were (37.4%). More than half (55.8%) of the respondents' were Muslims (Table 4.1b).

Table 4.1a Respondents' Socio-demographic Characteristics N=500

Variable	N	%
Age group (years)*		
≤ 20**	40	8.0
21-29	289	57.8
30-39	145	29.0
≥ 40***	26	5.2
Family background		
Monogamous	246	49.2
Polygamous	151	30.2
Single parent	103	20.6
Level of education		
Western Education	243	48.6
Islamic/Quaranic education	189	37.8
No formal education	68	13.6
Marital status		
Single	228	45.6
Married	197	39.4
Separated	30	6.0
Cohabiting	19	3.8
Divorced	14	2.8
Widower	12	2.4

***Mean age: 27.8 ± 6.8 years** ** Teenagers** *** Adults**

Table 4.1b Respondents' Socio-demographic Characteristics N=500

Ethnic Group		
Hausa	187	37.4
Nupe	159	31.8
Gwari	87	17.4
Yoruba	48	9.6
Igbo	19	3.8
Religion		
Islam	279	55.8
Christianity	209	41.8
African traditional religion	12	2.4

4.2: Prevalence of psychoactive substance use among respondents'

Majority (70.8%) of the respondents had ever used psychoactive drug without medical advice (see figure 4.1) with the age of PSU initiation being 20.2 ± 2.3 years. Most (77.3%) of the respondents who used psychoactive subtances have the habit of using more than one psychoactive substance at a time. Majority (68.8%) of the respondents knew other CMRs who use psychoactive drugs. Table 4.2 presents detailed information about use of psychoactive substances among respondents.

The proportion of respondents currently using psychoactive substances (as at the time of the study) was 61.6%. About eighty four percent of the respondents who use psychoactive subtances were of the practice of using psychoactive substance more than twice in a day. Slightly less than half (49.8%) of the respondents were introduced to the use of psychoactive drugs by friends, while a few (18.4%) of the respondents were introduced to PSU by colleagues/fellow CMRs. Some (42.2%) respondents reported that they could not get through the week without using psychoactive substances. Many (57.3%) affirmed that they could not always stop when they wanted. The major psychoactive substances among the list of psychoactive substances used in the last three months among those who were active drug users were cigarettes (9.1%) marijuana (8.1%) and Valium 7.9%). (see table 4.2 for further details).

Table 4.2a: Prevalence of psychoactive substance use among respondents

Prevalence of psychoactive substance use	No	%
Currently using psychoactive substance (N=500)		
Yes	308	61.6
No	192	38.4
Daily number of times using psychoactive substances (n=258)		
1 – 2	41	15.9
3 – 4	47	18.2
5 – 6	66	25.6
7 – 8	82	31.8
9 – 10	22	8.5
Person who introduce respondent to substance (n=245)		
Friends	122	49.8
Family members	78	31.8
Colleagues/Fellow Okada riders	45	18.4
Can get through the week without using drugs (n=309)		
Yes	204	57.6
No	105	42.4
Needs to use drugs more and more to get the effect (n=354)		
Yes	135	38.1
No	219	61.9
Always able to stop using drugs when you want to (n=354)		
Yes	151	42.7
No	203	57.3
What respondent has used in the past three months*		
Cigarettes	147	9.1
Marijiuana/ Indian Hemp	138	8.5
Valium, ranfenol	129	7.9
Caffeine (Panadol extra, powerfist, albukun, power horse,etc)	119	7.3
Kolanut (caffeine)	113	7.0
Alcohol	111	6.8
Cough syrup (codeine)	107	6.6
Tramadol (Tramal)	100	6.2
Petrol and petroleum products	89	5.5
Solution	83	5.1
Quat	81	5.0
Opoids(Morphine,Pentazoscine)	68	4.2
Dried Faecal matter/ Gutter	64	3.9
Cocaine (crack)	48	3.0
Ampetamine	47	2.9

Multiple responses

4.2b: Prevalence of psychoactive substance use among respondents

Age at initiation	**n= 358**	No.	%
15-19yrs		136	38.0
20-24		204	57.0
>24		18	5.0
Uses more than one drug at a time	**n=256**	No	%
Yes;		198	77.3
No		58	22.7
Respondents who knew someone who UPS	**N=500**		
Yes		344	68.8
No		156	31.2

Mean age at initiation of PSU 20.2± 2.3

N=500

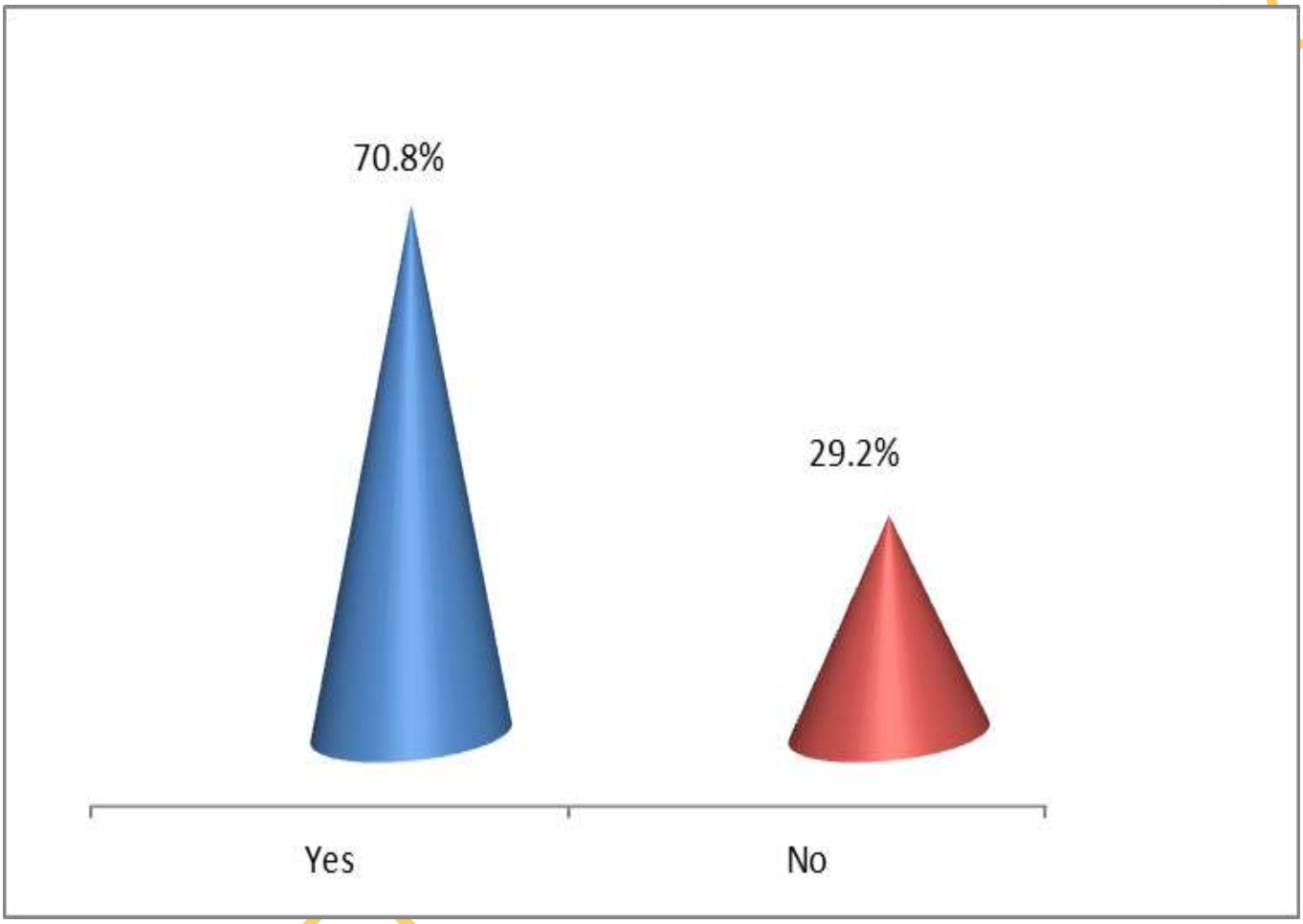


Fig 4.1: Respondents who had ever used psychoactive drug without medical advice

4.3: Respondents' knowledge of health implications of substance use

Table 4.3 shows respondents' knowledge of health implications of PSU. Slightly less than half (47.0%) of the respondents had a good knowledge of health implications of psychoactive substance use. Few (15.4%) respondents had poor knowledge related to health implications of substance use, (See figure 4.2 for further details). The knowledge score of health implications of psychoactive substance use among respondents was 12.1 ± 4.3 ($p<0.05$). Majority (70.8%) of the respondents' knew that psychoactive substances are used to feel high, get more energy and to become more active. More than half (56.6%) of respondents knew that active use of psychoactive substances means use of drugs other than for medical reason. Slightly below half (44.0%) of the respondents knew that drugs are supposed to be used only for medical reasons and more than half (65.6%) actually knew that active drug use is not good because it may lead to serious negative health problem, 89.8% know that psychoactive drug use may led to madness if left untreated and 78.6% know that it can lead to organ damage, (See table 4.3b for further details).

Table 4.3a: Respondents' knowledge of health implications of substance use (N=500)

Understanding of psychoactive substances	No	%
Substance used to feel high, get more energy and to become more active*	354	70.8
Substances used to treat ailments	104	20.8
Substances used to treat animals	7	1.4
Substances that causes madness	35	7.0
Meaning of active use of psychoactive substance		
Use of drugs other than for medical reasons*	283	56.6
Drug use without medical advice	125	25.0
Drug use in a hospital by an active person	59	11.8
Continuous use of drugs.	33	6.6
When one is supposed to use drugs		
Only for medical reasons*	220	44.0
Whenever we want to get more courage	139	27.8
To increase our endurance	121	24.2
At your discretion	20	4.0
One of the following is not a risk factor of substance use		
Good upbringing*	262	52.4
Peer pressure	128	25.6
Curiosity	87	17.4
Influence of adult substance users	23	4.6
Why people actively use drugs		
To feel high and improve performance*	223	44.6
For other reassons	105	21.0
To become a better you	92	18.4
To cure diseases	80	16.0

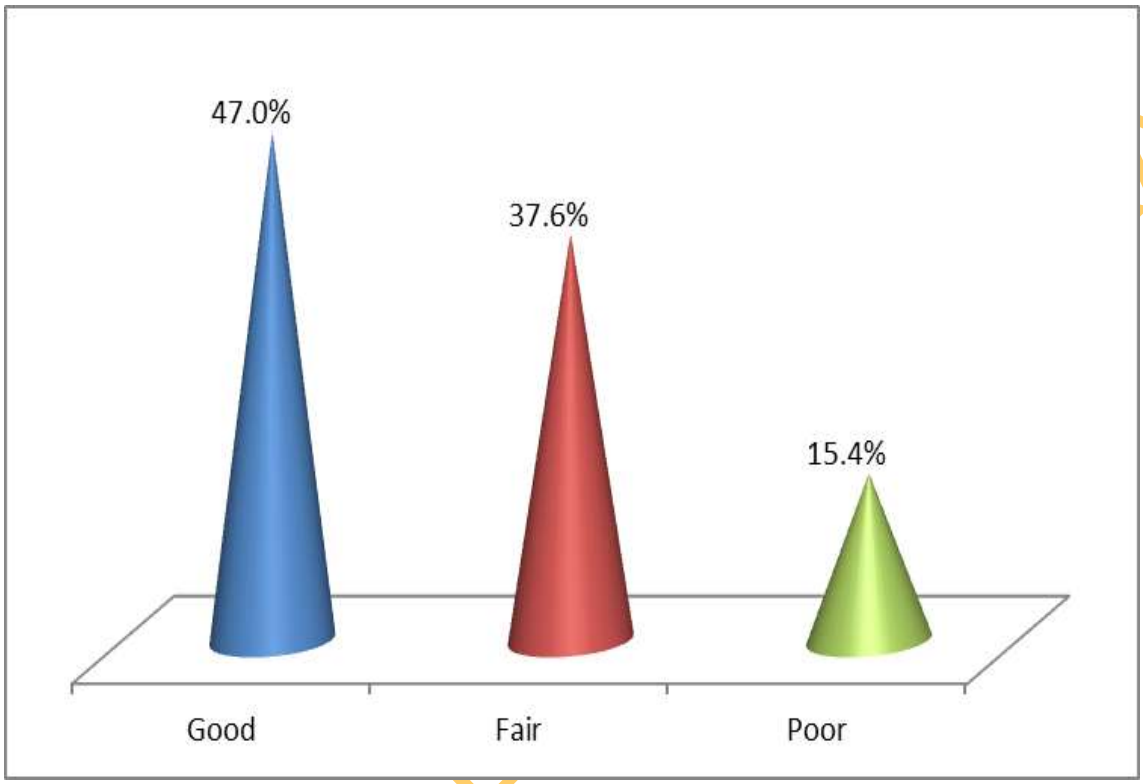
**Correct response*

Table 4.3b: Respondents' knowledge of health implications of substance use (N=500)

Knowledge	No	%
Negative health implication of drug use		
Adverse health consequences are health states such as the risk of transmission of infectious diseases, overdose and violence *	230	46.0
Health effects generally produce by drugs	103	20.6
They make the user happy	78	15.6
No idea	89	17.8
Active drug use have any negative health implication		
Yes*	328	65.6
No	64	12.8
No, except when used indiscriminately.	55	11.0
No idea	53	10.6
Negative health implications of active drug use		
Madness if left untreated*	449	89.8
It brings progress	28	5.6
Success in life	10	2.0
It reduces idleness	13	2.6
Other health implications of substance use		
May lead to organ damage e.g liver, kidney*	393	78.6
It does not cause infections like HIV/AIDS	49	9.8
It offers protection from spirits and devils	30	6.0
It makes users to be more productive	28	5.6

*Correct response

N=500



Knowledge score 12.1 ± 4.3

Fig. 4.2: Respondents' knowledge of health implications of substance use

4.4 Respondents' perception of the health implications of psychoactive substance use

Table 4.4 shows respondents' perceptions of health implications of psychoactive substance use. Respondents perception score of health implications of psychoactive substance use was 11.2 ± 4.7. More than half (54.4%) of the respondents had a positive perception of health implications of psychoactive substance use (Fig 4.3). Majority (72.0%) of the respondents were of the perception that commercial motorcycle riders should never try psychoactive substances because they do not offer any advantage over non users. Many (53.0%) respondents were of the perception that using psychoactive substances in moderation is acceptable. The perception of 50.4% of the respondents was that psychoactive substances use should not be discouraged because they have no serious/adverse health effects when used moderately and slightly above half (52.6%) of the respondents perceived that it is not possible that psychoactive substance use increases accident rate among commercial motorcycle riders, (Table 4.4 for further details)

Table 4.4: Respondents' perception of the health implications of psychoactive substance use (N=500)

Perception of substance abuse	Agree	Undecided	Disagree
I look negatively at my peers who use psychoactive drugs	375* (75.0%)	41 (8.2%)	84 (16.8%)
Okada riders should never try drugs because they do not offer any advantage over non users	360* 72.0%)	75 (15.0%)	65 (13.0%)
Using Psychoactive drug in moderation is acceptable	265 (53.0%)	69 (13.8%)	166* (33.2%)
Psychoactive drug use should not be discouraged because they have no serious/adverse health effects when moderate	147 (29.4%)	101 (20.2%)	252* (50.4%)
Psychoactive drugs should not be used by Okada riders because of their adverse health implications	374* (74.8%)	75 (15.0%)	51 (10.2%)
It is not possible that psychoactive drug use increases accident rate among Okada riders	263 (52.6%)	63 (12.6%)	174* (34.8%)
The use psychoactive drugs usually offer motorcycle riders protection from wind and cold	185 (37.0%)	62 (12.4%)	253 * (50.6%)
Use of psychoactive drugs usually responsible for the reckless and dangerous driving among Okada riders	360* (72.0%)	67 (13.4%)	73 (14.6%)
Psychoactive substances users are more likely to be victims of accidents	398* (79.6%)	43 (8.6%)	59 (11.8%)
I am in total control of my drug use	367 (73.4%)	52 (10.4%)	81* (16.2%)

Note: *appropriate options or responses were awarded 2-points, while inappropriate responses (which were not asterisked) were awarded no point or zereo point.

N= 500

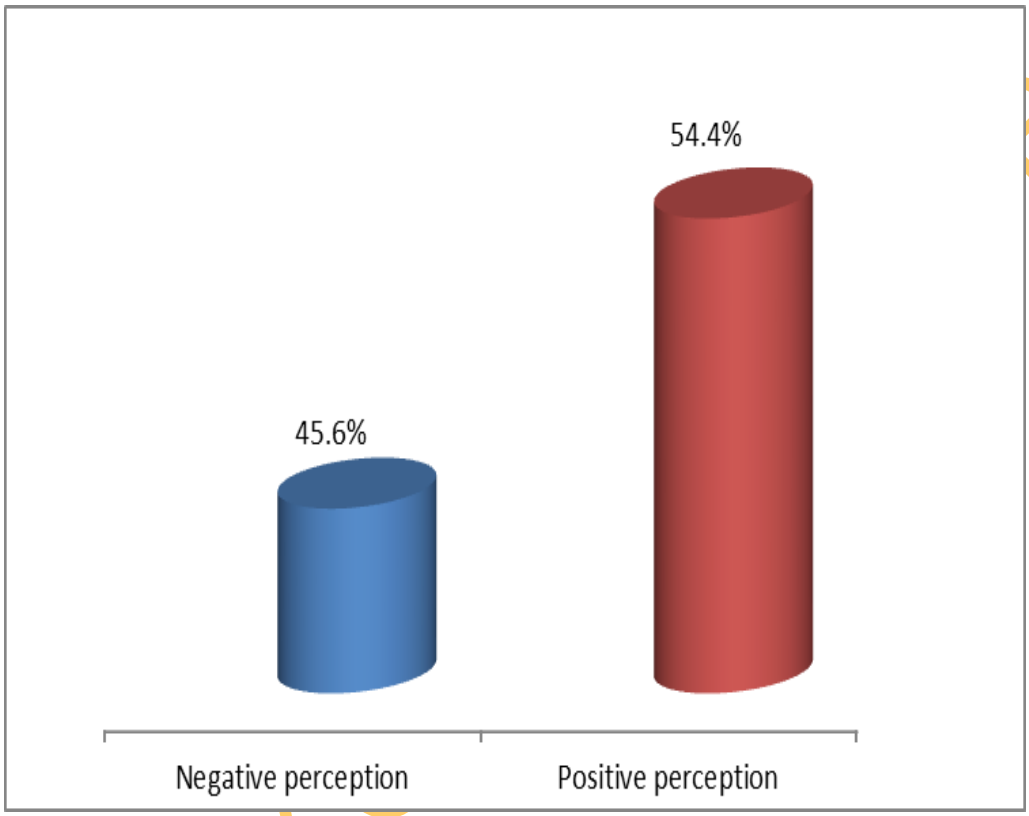


Fig 4.3: Respondents' perception of the health implications of psychoactive substance use

4.5: Perceived factors for psychoactive substance use among respondents

Need to suppress fatigue (22.6%) top the list of reasons adduced for using psychoactive substances. Other major perceived reasons for using psychoactive substances were 'to keep awake' (19.6%), 'to increase strength' (17.6%), 'to get more courage' (17.0%), and 'to increase performance' (14.5%). However, the desire for more power/energy had the greatest contribution to the UPS (r^2 = 0.80, 95% CI: 3.2-3.6). (see table 4.5b for further details). The use of psychoactive substances by others (14.2%) was perceived as a factor facilitating the use of psychoactive substances among CMRs, (Table 4.5a).

Peer influence (58.6%) topped the list of predisposing factors mentioned that influence the practice of PSU among CMRs. Other predisposing factors were: ignorance (23.8%) and curiosity (15.4%). Major sources of psychoactive substances listed by the respondents include street traders (21.1%), pharmacy shops (19.2%), patent medicine vendors/dealers (14.8%), and friends (11.6%). Many (43.2%) respondents opined that psychoactive substances are readily available and accesable all the time. About forty four percent opined that they have personally seen illegal drugs being sold in the open market. Slightly less than three quarter (73.9%) claimed it will take them less than an hour to get psychoactive substance. Majority (63.3%) of the respondents who were active users of psychoactive substances had friends who were also using psychoactive substances. (see figure 4.4 for more details)

4.5a: Perceived factors for psychoactive substance use among respondents' (N=500)

Factors responsible for psychoactive substance	N	%
Perceived reasons why people take drugs*		
To suppress fatigue/be more active	183	22.6
To keep awake	158	19.6
To increase strength	142	17.6
To get more courage	137	17.0
To enhance performance	117	14.5
Because others are taking it	71	8.7
Predisposing factors to psychoactive substance use*		
Peer influence	293	58.6
Ignorance	119	23.8
Curiosity	77	15.4
Personal problems	11	2.2
Sources of psychoactive substance*		
Street traders	201	21.1
Pharmacy shops	183	19.2
Patent medicine dealers	141	14.8
Friends	110	11.6
Dealers	108	11.4
Hotels	73	7.7
Clubs	73	7.7
Family members	62	6.5
Psychoactive substances are easily accessible at all times to all (N=308)	133	43.2
Yes	175	56.8
No		
Personally seen illegal drugs being sold in the open street (N=308)++		
Yes	136	44.2
No	172	55.8
How long would it take you to get any of the drugs (N=161)	119	73.9
An hour or less	25	15.5
A few hours	8	5.0
Would be unable to buy it	5	3.1
One day	4	2.5
One week		

**Multiple response ++ non responses were excluded*

4.5b Reasons for substance use using linear regression analysis

S/n	Reasons for substance use	R^2	Regression co-efficient	Df	p-value	C.I
1	To keep awake	0.46	2.8	1	<0.01	2.5-3.0
2	To suppress fatigue	0.52	2.8	1	<0.01	2.6-3.1
3	To increase strength	0.80	2.8	1	<0.01	3.2-3.6
4	To improve performance	0.75	3.4	1	<0.01	3.1-3.6
5	For courage	0.78	3.4	1	<0.01	3.1-3.6
6	Others reasons.	0.61	3.3	1	<0.01	2.9-3.7

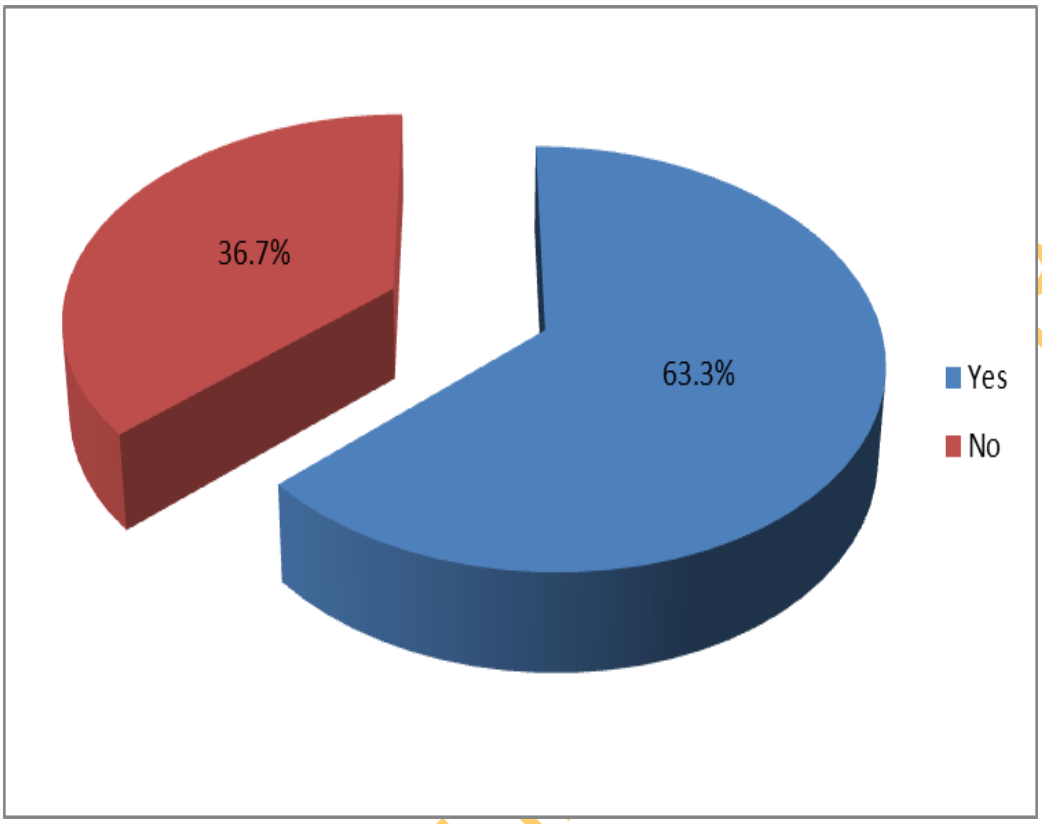


Figure 4.4: Respondents who had friends who were using psychoactive substances

4.6: Percieved consequences of active psychoactive substance use among respondents

The reported consequences of psychoactive substance use among respondents are presented in table 4.6. Physical health consequences of PSU among respondents included joint pain (11.5%), tiredness (11.3.%), poor appetite (10.7%) and stomach pain (10.6%). The major psychological health consequence relating to PSU reported by the respondents were substance addiction (25.9%), feeling tensed (13.5%), feeling of lack of interest in things (10.5%) and feeling of worthlessness (9.7%). The main social consequences of PSU suffered by respondents include strained relationship with family and friends (39.0%), and doing things they wouldn't normally do such as extra marital affairs or engaging in unprotected sex (20.3%), (see table 4.6a for more details)

Some (46.8%) of respondents had been involved in accident or injury in the past three months preceding the study. (See figure 4.5). The nature of injuries reported included fractures (50.9%) and bruises/ lacerations (33.4%). (see table 4.6b for further details). More than half (53.8%) of the respondents had been sick or for some reasons in the last three months preceding the study, the major reasons for their being hospitalized included tiredness (34.2%), and mental problems 18.2%). Many ((47.4%) of the respondents who are using psychoactive substances affirmed that they cannot stay for a day or two without using psychoactive substances. More than half (66.0%) of the respondents reported that they often have negative consequences as a result of UPS. These negative consequences include body weakness (25.6%) and restlessness (23.6%).

4.6a: Percieved consequences of psychoactive substance use among respondents'

Physical health consequences experienced as a result of PSU*		
	No	%
Feeling tensed	124	11.8
Joint pain	120	11.5
tiredness/fatigue	118	11.3
Poor appetite	112	10.7
Stomach pains	111	10.6
Tremors/shake	105	10.0
Chest pain	97	9.3
Difficulty in breathing	97	9.3
Nausea	94	9.0
Muscle pain	69	6.6
Psychological consequences experienced as a result of PSU*		
Can't stay for a day or two without using drugs	237	25.9
Feeling tensed	124	13.5
Feeling of no interest in things	96	10.5
Feeling of worthlessness	89	9.7
Nervousness	89	9.7
Feeling lonely	82	9.0
Feeling fearful	70	7.6
Spells of terror or panic	65	7.1
Suddenly scared for no reason	64	7.0
Social consequences experienced as a result of PSU*		
Problems between respondent and his family/friends	113	39.0
Have done things one would not normally do (Abnormal behavior)	60	20.7
Have been arrested or had other legal problems	59	20.3
Gotten into arguments or fights while drinking or using drugs	58	20.0

**Multiple response*

Table 4.6b Percieved consequences of active psychoactive substance use among respondents

Consequences of active psychoactive substance use among respondents'	n	%
Nature of the injuryfrom accident (N=234)		
Limb fractures (upper and lower)	119	50.9
Lacerations/bruises	78	33.3
Others	37	15.8
Ever been sick or hospitalised for any reason in the last three months	269	53.8
If yes, the problem* (N=269)		
Tiredness	92	34.2
Kidney problem	67	24.9
Heart problem	61	22.7
Mental problem	49	18.2
Can't stay for a day or two without using psychoactive substances	92	47.4
How you feel when you do fail to take your drugs*		
Normal	170	34.0
Body weakness/tiredness	128	25.6
Restless	118	23.6
Pain all over my body	84	16.8

- *Multiple responses

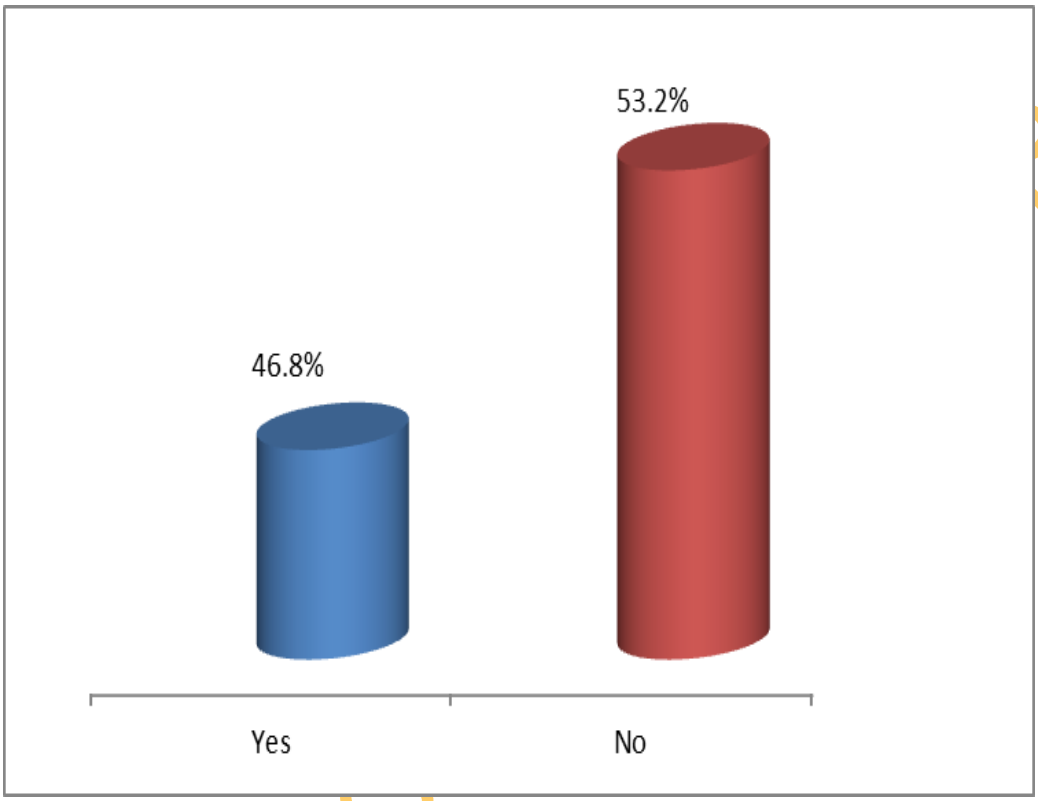


Figure 4.5: Involved in an accident or sustained injuries while riding a motorcycle

4.8 Test of Hypotheses

The study tested four hypotheses. All the hypotheses were proposed as null hypotheses at 95% confidence level and 5% level of statistical signinificace otherwise referred to as limit of error with p - value of 0.05. The appropriate test statistics used to determine the existene or absence of relationship between the variable of intrest for the study was Chi-square (X^2) and logistic regression model. The research hypotheses were tested by comparison between the respondents' use of psychoactive substances through their demographic variables like, level of education, knowledge, perception and causes of accident.

Hypothesis 1

"**There is no significant relationship between age of respondents and use of psychoactive substance**".

Table 4.7 presents the result of the null hypothesis which states that there is no significant relationship between age of respondents and use of psychoactive substance. Use of psychoactive substance was highest among the older adults, 40 years and above (73.7%) followed by those who were younger adults with age range of 25–40 years. Since the P value was found to be lower than 0.05 ($p \leq 0.05$) overall, it could be concluded that there was a significant relationship between age of respondents and the use of psychoactive substance.

The null hypothesis, which stated that there is no relationship between age and use of psychoactive substaces, was therefore rejected, and the alternate hypothesis is hereby accepted that age of respondents is associated with use of psychoactive substance.

Table 4.7: Relationship age of respondents and use of psychoactive substance

Age group (in years)	Psychoactive substance use	
	Yes	**No**
< 24	50.7%	49.3
25-40**	65.8%	34.2%
>40***	73.7%	26.3%

(X^2) = 26.83, df = 2 P value = 0.005

* Adolescents ** young adults, ***older adults.

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Hypothesis 2

"There is no significant relationship between respondents' perception and use of psychoactive substance".

Table 4.8 presents the result of the null hypothesis which stated that there is no significant relationship between respondents' perception and use of psychoactive substance. The results indicate that the p-value obtained was much lower than 0.05. Prevalence of PSU was higher (64.9%) among respondents who had negative perception relating to PSU compared with the prevalence of PSU among their counterparts who had positive perception (58.8%). This suggests that the hypothesis is not true and is therefore rejected. The alternate hypothesis is hereby accepted that there was a significant relationship between perception of of CMR relating to PSU and use of psychoactive substances.

Table 4.8: Relationship between respondents' perception and use of psychoactive substance

Perception of psychoactive substance use	Psychoactive substance use	
	Yes	**No**
Negative	64.9%	35.1%
Positive	58.8%	41.2%

(X^2)= 74.688, df = 1 p-value = 0.016

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Hypothesis 3

"There is no significant relationship between respondents' level of education and use of psychoactive substance".

Table 4.9 highlights the results of the hypothesis which states that there is no significant relationship between respondents' level of education and use of psychoactive substance. PSU was higher (80.9%) among who had no formal education compared with prevalence rates among those who had Islamic education (57.1%) and western education (59.7%). Overall there was a significant relationship between respondents' level of education and use of psychoactive substance. This suggests that the hypothesis is not true and is therefore rejected. The alternate hypothesis is hereby accepted that respondents' level of education is related to their use of psychoactive substance. Respondents' with western education had high number of psychoactive substance use compared with their counterparts who had no formal and Quranic/ Islamic education.

Table 4.9: Relationship between respondents' level of education and use of psychoactive substance

Level of education	Psychoactive substance use	
	Yes	No
No formal education	80.9%	19.1%
Quranic/ Islamic education	57.1%	42.9%
Western education.	59.7%	40.3%

$(X^2) = 143.187$, df = 2, p -value = < 0.001

Hypothesis 4

"There is no significant relationship between age of respondents and knowledge of psychoactive substance".

Table 4.10 highlights the results of the hypothesis which states that there is no significant relationship between age of respondents and knowledge of psychoactive substance. Respondents' aged 41-64 years had a good knowledge (42.1%) of psychoactive substance compared with their counterparts in 15-24 years (40.5%) and 25-40 years (34.5%). Overall there was a significant relationship between age of respondents and their knowledge of the health implication of PSU.

Table 4.10: Relationship between age of respondents' and knowledge of psychoactive substance

Age group	Knowledge of psychoactive substance		
(years)	Poor	Fair	Good
15-24	0.0%	59.5%	40.5%
25-40	0.0%	65.5%	34.5%
41-64	5.3%	52.6%	42.1%

(X^2) = 117.131, df = 2, p-value = 0.004

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Socio-demographic characteristics and related information

All the respondents were males. This is not surprising as the occupation is male dominated and these males are traditionally breadwinners and are likely to be involved in outdoor and risky activities including commercial motorcycling. This finding is similar to that of previous studies in Ibadan and Sagamu, western Nigeria among commercial motorcyclist (Lasebikan and Baiyewu, 2009; Adenekan and Osibogun, 1999).

The age of respondents' was 27.8 ± 6.8 years and majority of the respondents were between the ages of 25-34 years. This is similar to a study in Zaria, Nigeria by Alti-Muazu and Aliyu (2008) where mean age of CMRs was 25.4 ± 3.9 years. The fact that majority of the respondents were between the ages of 25-34 years is not surprising because this is the most productive age group of the population and the people in this age group are usually willing to take any risk in order to make ends meet. In addition, they are also the group with the energy demanded by this job because commercial motorcycling is quite demanding and requires expending a lot of energy.

Most of the respondents were of the Hausa ethnic group and had western education but many had only Islamic/Quranic education. This corroborates a study by Alti-Muazu and Aliyu (2008) where most had no formal education and majority belonged to Hausa ethnic group. More than half of the respondents' were Muslims. This is similar to a study in Ibadan, Nigeria by Ndikom, Ndikom and Uvere (2014) where it was also that more than half reported Islam as their religious affiliation.

5.2 Prevalence of psychoactive substance use among respondents'

A majority of respondents' were currently using psychoactive substance. This is greatly higher than the proportion reported by Ndikom et al., (2014) where it was reported that only a few of the respondents use substances. Alti-Muazu and Aliyu, (2008) reported a high prevalence rate of psychoactive substance use among commercial motorcycle riders in Zaria, Nigeria. In addition, Gboyega, (2012) found that between majority of commercial drivers engage in drinking and

driving. Makanjuola et al, (2007) reported that driving was done in conjunction with the use of the following psychoactive drugs: alcohol, tobacco, cannabis, caffeine, sedatives, and solvents. In a study by Adogu, Ilika and Asuzu (2009) on predictors of Road Traffic Accident (RTA) in Nigeria, alcohol intake among the motorcyclists was found to be an obvious predictor of RTA and death.

Majority of the respondents were introduced to psychoactive substances by friends. This corroborates other studies where peer group effect was also reported to be additional factor influencing psychoactive substance use among motorcycle riders (Alti-Muazu and Aliyu, 2008; Odejide and Olabisi (2004). Psychoactive substance use is associated with susceptibility to peer pressure and encouragement by friends who is having positive attitude towards drug use (Talaei, Mokhber, Bordbar, Javanbakht and Samari, 2008). On the other hand, the need to justify or seek approval for their behaviours from other peers may propel them to seek for new members. To achieve this, they often try to convince others to join in their habit as a way of seeking acceptance (Yakasai, 2010). This result underscores the need to employ peer education as an effective health education strategy for addressing psychoactive substance use among CMRs.

The major psychoactive substances among the list of psychoactive substances used in the last three months among those who were active drug users were cigarettes, marijuana, and Valium. Some of the respondents reported using Indian hemp and Codeine containing cough syrup as psychoactive substances. A study by Alti-Muazu and Aliyu (2008) also revealed marijuana (India hemp), solution, caffeine (Kola) and coffee as commonly abused psychoactive drugs. Many young people in Nigeria take psychoactive substances such as cannabis and other stimulants (Eneh and Stanley 2004). Alcohol use was also common but to a lesser degree probably due to the observance of sharia law in the stae which prohibits the sale and comsumption of alcohol in open places. Behavioural change public health information aimed at prevention and controlling the use of psychoactive substances should be provided adolescent and young people early enough before they become chronic drug addicts.

It came out clearly from the study that majority of the respondents' started using psychoactive substance since when they were young. Age was found to be significantly associated with PSU.

The prevalence of PSU was significantly higher among older adults who were above 40 years and young adults, compared with their adolescent counterpart. This may not be unconnected to the fact that older persons likely adapted the use of PS because they needed higher energy level for commercial motorcycle business. Another possible explanation is that older persons (CMRs) must have gained some negative experiences in the business and other life experiences that might have facilitated the adoption of PSU behavior as well as the related antisocial behavior. Also the adolescents might not have been in the profession for a very long time to be negatively influenced by other colleagues into the practice of PSU. Commercial motorcyclists who are adolescents should be targeted with public health interventions aimed at addressing PSU.

5.3: Respondents' knowledge of health implications of substance use

Slightly less than half of the respondents' had a good knowledge of health implications of psychoactive substance use. Oridota et al., (2013) also reported that most of the CMRs knew behavioural changes, mental illness, accident and death as effect of substance use. The findings are also similar to that of a previous study in Ibadan which reported that psychoactive substance use causes mental illness (Adenekan and Osibogun, 1999).

Majority of the respondents' knew that psychoactive substances are used to feel high, get more energy and to become more active. Psychoactive substances, also commonly known as psychoactive drugs are substances that when taken, have the ability to change an individual's consciousness, mood or thinking processes. Psychoactive substances act in the brain on mechanisms that exist normally to regulate the functions of mood, thoughts, and motivations (WHO, 2004).

More than half of the respondents' knew that active drug use is not good because it may lead to serious negative health problem. This is not in agreement with a study by Ndikom et al., (2014) where a greater proportion (70.0%) of the respondents disagree that substances negatively affect health. Psychoactive drugs impose a substantial health burden on individuals, familiies and the society, (Giade 2011). Worldwide, psychoactive drugs are responsible for certain percentage of all DALYs lost. The health burden attributable to tobacco and alcohol is particularly high for

men in developed countries, mainly Europe and North America. Indeed, tobacco and alcohol combined are considered responsible for over a third of all male deaths in developed countries. Moreover, the impact of tobacco is expected to increase in other parts of the world (WHO, 2004).

5.4 Respondents' perception of the health implications of psychoactive substance use

Slightly more than half of the respondents' were of the perception that using psychoactive substances in moderation is acceptable. This negative perception may be partly responsible for the use of psychoactive substance use and driving that has continued unabated in Nigeria. The Federal Road Safety Corp and other civil organizations have continued to put up campaigns against drunk-driving. The enforcement aspect against drunk-driving has, unfortunately, been unsuccessful as there is no legal basis for determining the legal limits of blood alcohol concentration (BAC) in the Nigerian Traffic laws (Welcome and Perez, 2010).

More than half of the respondents' had negative perception that it is not possible for psychoactive substance use to increase accident rate among commercial motorcycle riders. This is an example of a negative perception that may encourage the use of psychoactive substances among commercial motorcycle riders. The association between psychoactive substance use and accidental injury or death has been acknowledged (Makanjuola, Aina and Onigbogi, 2014). The WHO has reported a link between drivers' hazardous use of alcohol and road traffic accidents in Nigeria (WHO, 2009). Approximately, more than half of accidents, and its attendant consequences, on Nigerian roads are related to alcohol use (Welcome and Pereverzev, 2010). Many studies in Nigeria have also reported common use of alcohol (and other psychoactive substances) among commercial and long distance vehicle drivers (Makanjuola, Daramola and Obemebe, 2007; UNAIDS, 2007).

Perception of CMRs towards psychoactive substances was found to be significantly related to PSU. A higher prevalence of PSU was observed among CMRs with unfavourable perception relating to PSU. Public health interventions aimed at addressing unfavourable perception relating to psychoactive substances are justifiable.

5.5 Perceived factors for psychoactive substance use among respondents

Major factors found to encourage the use of psychoactive substance were peer pressure need to improve work performance, need to suppress fatigue, and keep awake. Similar patterns were observed in previous studies conducted in Nigeria (Alti–muazu and Aliyau, 2008: Oridota et al,. 2013). A study by Alti-Muazu and Aliyu (2008) also reported that peer pressure, to keep awake, suppress fatigue and mood elevation constituted most of factors influencing drug use among respondents'. According to Etim and Offu (2010) most people in Nigeria use kola nuts and coffee (to stay awake), cigarettes and cannabis (to stay alert throughout the day), alcohol (as a way to relax) and aspirin to reduce pain.

In another study by Oridota, Ashindoitiang, Olatona, Olajide, Akanmu and Soriyan (2013) wanting to feel high, improving performance, socialization, to maintain wakefulness are some of the reasons that may facilitate the use of psychoactive substance use among commercial motorcycle riders. Findings from this study reveals that availability of psychoactive substances and sales in patent vendor shops are some of the facilitating factors capable of promoting PSU among CMRs. Health policies and public health information that have the potential to address this problem needs to be instituted.

5.6 Consequences of active psychoactive substance use among respondents

Several physical, psychological and social health consequences were observed among the CMRs who were active users of PS. Studies have noted various short term and long term health consequences of PSU. Some of the short term consequences include effect on physical coordination, concentration, and Judgment which may increase the vulnerability to road traffic accidents or injuries. Some of the fatal health consequences of PSU include accident, liver cirrhosis, lung cancer and mental health problems. A high prevalence of RTA that was associated with the use of psychoactive drugs was found among motorcyclists according to a study conducted by Alti-Muazu and Aliyu (2008) in Zaria, Nigeria. Various other studies such as Sexton et al (2004) and Oginni, Ugboko, Ogundipe, Bernice and Adegbehingbe (2005) have observed that most accidents involving CMRs usually involves use of psychoactive substances.

Almost half of the respondents are already addicted to drug as they cannot stay for a day or two without using drugs because they will feel restless, pain all over the body and body weakness/tiredness. Drug addiction, also referred to as drug dependence, is a disorder of the brain brought on by the use of psychoactive drugs. These drugs affect some of the normal processes in the brain related to perception, emotion, and motivation, thus affecting behaviour and thoughts (WHO, 2004). Drug addiction is more frequent in individuals who have a mental illness compared to individuals without any mental disorder. Likewise, people who are drug dependent are more likely to suffer from mental disorders than non-dependent people.

Many of the respondents' were involved in accident or injury in the past three months. Globally, deaths and injuries from road crashes are a major and growing public health problem. More than 20 million people are severely injured or killed on the world's road each year and the burden falls most heavily on low income countries (Solagberu, Ofoegbu, Nasir, Ogundipe, Adekanye, Abdur-Rahman, 2006).

5.7 Implications of finding for Health Promotion and Education

Health Education focuses on the modification of people's behaviour and behavioural antecedents (Green and Kreuter, 1999). Health education is thus concerned with helping people to change their negative attidues to positive once. (WHO, 1999). Health education principles and strategies can be used to address the challenges identified in this study.

The findings of this study have several implications for planning, development and implementation for health promotion and education issues relating to psychoactive substance use among CMRs. Several health education strategies such as public enlightenment, training of CMRs, advocacy programmes, legislations against PSU and partnership with relevant stakeholders have huge potentials in addressing the phenomenon.

Awareness of the existence, magnitude, context and the PSU among CMRs must be raised among the CMRs in Minna metropolis and in the country in general. The policy on drug use should be explicit in respect of the consequences of PSU. The State radio and televion stations,

and the print media could be used to disseminate prevention messages and messages about the dangers of psychoactive substance use, in local languages. (Hausa, Nupe and Gwari).

Public enlightenment campaign can be used to create awareness on the health consequences of PSU and influence knowledge, behaviours and practices relating to psychoactive substance use. It has the potential for reaching large numbers of people including CMRs and significant others such as friends and other relatives that can influence use of psychoactive substances. Public enlightenment techniques directed at CMRs could involve the use of posters, leaflets, documentaries, jingles and bill boards. It can also be combined with other strategies such as peer education, group counselling and advocacy to effectively address the problem of inappropriate psychoactive substance use among CMRs.

Training of leaders of CMRs unions or associations on psychoactive substance-related issues could be an effective strategy for addressing inappropriate psychoactive substance use among CMRs. This becomes necessary as these set of people interact closely with CMRs and are saddled with the responsibilities of regulating their activities and enforcing sanctions based on their association rules. These leaders of CMRs should be trained on how to educate CMRs and need to have sanctions CMRs who are into the habits of using psychoactive substances. It is important to train them on how to provide good mentoring and set good examples for other CMRs by abstaining from use of psychoactive substances themselves. The effectiveness of training in enhancing peoples' capacity to solve public health related problems has been demonstrated in several studies, such as Oshiname and Briger (1992), which effectively demonstrated the use of training to make Patent Medicine Vendors safer contact with their clientele.

Peer education could be used to promote knowledge of health consequences of PSU and practices that discourage use of psychoactive substances among CMRs, (Lonsway et al, 1998). Since peers have great influence on behaviours of individuals, educationtional and behavioral changed activities provided by peers have great potentials for yeilding positive results. Peer-led educational activities focusing on prevention and control of PSU hold great promise for addressing the burden of PSU among CMRs. Peer education could be more effective if deliverd in multiple sessions and delivered over many years. (Mulroney, 2003)

Counselling as a health education strategy can be useful in addresing the burden of PSU among the respondents. Counselling is typically characterized by one person assisting another person or group of persons to gain an understanding of themselves and their situations. Counselling people thus enable them to make and implement appropriate decisions. It is important to offer pyscho-therpahy to CMRs who may be addicted to PSU in other to help them overcome their challenges. Officals of the Federal Road Safety Corps and Nigeria Polices should partners with health workers and CMRs associations in provision of counselling services to CMRs to enable them overcome the problems of PSU.

Another strategy that can be used to prevent and control PSU among CMRs is advocacy. The World Health Organization has recognized advocacy as one of the most potent strategies for addressing behavioural change (WHO, 2010). Advocacy is a process that can bring about change in policies, laws and practices of significant individuals, groups, communities and institutions (WHO, 2010). Advocacy could be used change socio-cultrual factors such as baised norms, cultural beliefs and attitudes that promote or sustain PSU. Advocacy interventions should target the State and LGAs CMRs' union body and community-based organizations including faith-based organizations in the metropolis. Advocacy campaigns can be built around global events on the global calendar, such as the internatioonal day against drug abuse and illicit tafficking which comes up on June 26 every year. Involving prominent public figures, local and national media in campaigns built around this event can boost PSU prevention interventions.

Advocacy can be made more effective by using locally generated data from systematically conducted studies. The use of research findings for advocacy has been shown to be promising in raising awareness and contributing to the shaping of reforms and policies. The use of research findings when combined with international agreements such as the United Nations resolutions on the reduction of trade and abuse of drugs and other illicit substances, can further strengthen the impact of advocacy (WHO, 2010).

Partnership with relevant sectors and agencies and non-governmental associations can be used to address the problem of PSU. Effective prevention will require the planning of actions together, and the sharing of funding or other resources with other relevant organization or institutions. For

instance, government can liaise with relevant governmental and non-governmental organizations to set up agencies or organization that will provide support and care for PS users.

Partnership involves pooling of resources from different parties together to address common concerns. The Government could collaborate with relevant governmental organizations such as Ministries of Health and Justice and non-organizational organizations to organize behavioural change interventions that can sensitize and educate CMRs and policy-makers on substance use. Partnership may also be formed with CMRs unions or associations in the state with a view to creating awareness on on PSU.

Policy interventions including legislation of laws against PSU represent effective strategy that might be used to address the problem of PSU among CMRs. Such laws should be implemented thoroughly and appropriate sanctions and prosecution should be carried out against offenders to serve as deterrent to others and promote the prevention and control of PSU among CMRs. The policy should equally address appropriate sanctions and rehabilitative programmes for victims of substance use..

Combined use of two or more of the afore-mentioned health promotion and education strategies is more suitable for promotion of public health interventions needed for preventing and controlling use of pyschoactive substances and its related problems among CMRs. The combination of strategies will ensure that weaknesses of one strategy are counter-balanced by the strengths of the others.

5.8 Conclusion

The study explored the level of knowledge and perception of the health implications of psychoactive substance use, prevalence, factors responsible and the perceived consequences of psychoactive substance use. There is a high prevalence of psychoactive substace use among the respondents. Reasons adduced for this high prevalence include included peer pressure, desire to keep awake, and the need to increase strength as most of the respondents who used the substances worked for eight hours or more a day. The commonly used psychoactive substaces included cigarettes, Indian hemp and sedatives.

Majority of the respondents were found to have a good knowledge of the health implications of psychoactive substance use. The findings also showed that, the majority accept the use of psychoactive substances which is a negative sign towards prevention of substance related problems. Many commercial motorcycle riders in Minna were found to be prone to accidents and injuries. This is consistent with the rising trend of road traffic accidents and injuries in Nigerian communities involving motorcycle riders. The use of psychoactive substances appears to contribute to a higher percentage of threat to frequent motorcycle accident. There is an urgent need public health intervention that will target current abusers because they will be at risk for substance related disorders and potential abusers because they have a chance of getting influenced by their peers. There is therefore need for public awareness campaigns on road safety, education and health consequences of psychoactive substance use among commercial motorcycle riders. Law enforcement agencies; National Agency for Food and Drug Administration and Control, National Drug Law Enforcement Agency and Federal Road Safety Corps (NAFDAC, NDLEA and FRSC) need to work in tandem so as to curb this societal menace.

5.9 Recommendations

Urgent sustained educational intervention would deem appropriate to reduce substance use while riding or driving in order prevent the occurrence of road traffic accident and improve the quality of life of motorcycle riders. Health workers should use every opportunity to educate the populace on the consequences of substance especially during driving. More effort should be made to ensure that factors contributing to the use of these substances are addressed in order to improve safety and health of the populace. Those identified with the habits should be counseled individually. Peer education process can be put in place to further improve the awareness of negative consequences of substance use especially during work. The leaders should be encouraged to be role models to the younger ones. To achieve all these, the research recommends the following:

1. Massive public enlightment campaign to sensitize the populace on the dangers of psychoactive substance use should be implemented in Niger State. This should be done in conjunction with high level advocacy to political, religious, and traditional leaders, while not

excluding public health institutions. In this direction, information on substance use consequences should be disseminated in local languages.

2. Commercial motorcycle riders in Niger State should be encouraged to eat healthy diets including energy giving foods, vitamins and minerals as substitute in lieu of psychoactive substances.
3. Government should enforce policies that prohibits the use of substances while riding motorcycle or driving. There should be strict penalties against anybody caught riding motorcycle under the influence of psychoactive substances The National Drugs law enforcement agency (NDLEA), Federal road safety corps (FRSC) and the Nigerian police should sustain the enforcement of all existing laws banning the use of substance while driving or riding by ensuring that violators of this law are sanctioned.
4. Leaders of the Motorcyclists' association in Niger State should be trained to educate others and be empowered to identify and sanction offenders.
5. Advocacy programs targeting union leaders of CMRs and law enforcement officers including federal road safety corps and Nigerian police should be used to encourage enforcement of existing laws prohibiting the use of Psychoactive substances in Niger State.
6. Peer education, individual or group counselling and involvement of CMRs union officials can be used as strategies for promoting knowledge and practice relating to prevention and control of PSU among CMRs.

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Appendix 1: Informed consent form.

My name is **ILIYA LABAN DANLAMI** from the department of Health Promotion and Education, Faculty of Public Health, University of Ibadan. I am carrying out a study to obtain information on the "knowledge, perceptions and use of psychoactive substance use among commercial motorcycle riders in Minna metropolis, Niger state, Nigeria**."** Your participation in this study will contribute to recommendations, programmes and policies that will address the f 1000the use of psychoactive substances among commerial motorcycle riders in Minna metropolis, Niger state Nigeria.

You are free to choose whether to participate in this study or not. I assure you that the information provided in this questionnaire will be kept strictly confidential and d solely for the purpose of research. Please note that your names are not needed on this questionnaire. If you have any question or concerns, please feel free to let me know.

Kindly show by using any of the following 2 boxes, that your participation in this study was voluntary.

Thank you for your cooperation

I will participate and will sign	I will participate but will not sign

Thank you.

Iliya Laban Danlami
Department of Health Promotion and Education,
Faculty of Public Health,
College of Medicine,
University of Ibadan.
Email: danlamiiliya70@yahoo.com
Tel: 08065265738

Office use only
Serial no……

Questionnaire

Section A **Socio demographic characteristics**

Instruction to interviewer. Please tick with an (X) in the boxes provided as appropriate.

1. Sex 1. Male ☐ 2. Female ☐

2. Marital Status i. Single/Never Married ☐ ii. Married ☐

iii. Co habiting. ☐ Iv. Separated ☐

v. Widow/Widower ☐ vi. Divorced ☐

3. Family type

i. Single parent ☐ ii. Monogamous ☐ iii. Polygamous ☐

4. Religion: i. Christian ☐ iii. Islam☐

ii. Traditional ☐ Other (Specify)……

5. Ethnic Group i. Nupe ☐ ii. Hausa ☐

iii. Gwari. ☐ Iv. Igbo ☐

v. Yoruba ☐ vi. Others (Specify)……..

6. Age in years (as of last birthday)…….

7. Educational qualification.

i. No formal education. ☐ Ii. Islamic/Quranic school ☐

ii. Primary school education. ☐ Iv. Secondary certificate./TC ☐

v. NCE/DIP. ☐ Vi. First Degree/HND ☐

vii. Post graduate. ☐ Viii. Others (specify).....

Section B.

Knowledge of health implications of substance use.

S/N	QUESTION	RESPONSE/OPTIONS	Score.
8	What do you understand by psychoactive substances	1) Substance used to feel high, get more energy, and become more active. 2) Substances used to treat ailments 3) Substances used to treat animals 4) Substances that causes madness.	
9	Active use of Psychoactive substance means	1) Use of drugs other than for medical reasons. 2) Drug use in a hospital by an active person 3) Drug use without medical advice. 4) Continuous use of drugs for other reasons.	
10	When are we supposed to use drugs	1) Only for medical reasons 2) Whenever we want to get more courage 3) To increase our endurance. 4) Whenever we feel the urge	
11	One of the following is not a risk factor of substance use.	1) Good upbringing 2) Peer pressure 3) Curiosity 4) Influence of adult psychoactive substance users .	
12	Why do people actively use drugs?	1) To feel high and improve performance 2) To become a better you. 3) To treat diseases 4) To be able to cope	
13	Active drug use is not good because	1) It may lead to serious negative health problems 2) It may cause drug dependence 3) It will increases confidence and intelligence 4) It makes us more feel like the real men	
14	What do you understand by negative health implication of drug use	1) Adverse health consequences are health states that occur through drug use and sexual behaviour (such as the risk of transmission of infectious diseases, overdose), from lifestyle (such as the risk of violence) and from increased vulnerability to disease through living conditions. 2) Health effects generally produced by drugs 3) They make the user happy 4) I have no idea	

15	Does active drug use have any negative health implications	1) Yes 2) No 3) No, except when used indiscriminately 4) I have no idea.	
16	What are the negative health implications of active drug use?	1) Madness if left untreated 2) It brings progress 3) Success in life 4) It reduces idleness	
17	Other health implications of substance use are	1) May lead to organ damage e.g. liver, kidney 2) It does not cause infections like HIV/AIDS 3) It offers protection from spirits and evil 4) It makes users to be more productive.	
	Total Knowledge score = 20		
	Maximum obtainable scores X		
	Knowledge grades. 0-5, Poor knowledge, 6-10, fair knowledge, 11-15, good knowledge and 16-20 excellent knowledge.		

Section C.

Perception of the health implications of substance use.

Kindly indicate on the 3- point scale how much you Agree (A), Disagree (D) and undecided (UD) to the following statements. Please tick only one statement.

S/N	STATEMENT	RESPONSE			SCORE
		Agree	Undecided	Disagree	
18	I look negatively at my peers who use psychoactive drugs.				
19	Okada riders should never try drugs because they do not offer any advantage over non users.				
20	Using Psychoactive drug in moderation is acceptable.				
21	Psychoactive drug use should not be discouraged because they have no serious/ adverse health effects when used moderately				
22	Psychoactive drugs should not be used by Okada riders because of their adverse health implications.				
23	It is not possible that psychoactive drug use increases accident rate among Okada riders.				
24	The use psychoactive drugs usually offer motorcycle riders protection from wind and cold.				
25	Use of psychoactive drugs is usually responsible for the reckless and dangerous driving among Okada riders.				
26	Psychoactive substances users are more likely to be victims of violence and/or accidents.				
27	I am in total control of my drug use.				

	Total perception score = 20				
	Maximum obtainable				
	Perception grades. 0-10pts = wrong perception, 1-20pts, = Right perception.				

SECTION D: PREVALENCE OF SUBSTANCE USE.

Instruction to interviewer.

For each question asked record X (yes) or leave blank (no).

Interviewer, please read out loud and clear to the interviewee.

"We're going to begin by looking at your use of different substances in the last 3 months

S/N	QUESTION please mark X where applicable.	RESPONSES	
		YES	NO
28	Have you used any drug at all without medical advice?		
29	Do you use any substance to make you more active/ work more hours?		
30	Do you know of Okada rider close to you who uses drugs?		
31	Can you give an estimate of the number of Okada riders using drugs (say out of 10).		
32	Do you think that drug use is on the increase or decrease?		
33	Who introduced you to substance use? a. Family member/s b. Friends c. Colleagues/ Fellow Okada riders. Please write A, B, or C. →		
34	Do you use more than one drug at a time?		
35	Can you get through the week without using drugs?		
36	Do you need to drink or use drugs more and more to get the effect you want?		
37	Are you always able to stop using drugs when you want to?		
38	At what age did you start using drugs?		

Type of substance ever used:

S/N	QUESTION		
	Which of the following drugs have you (or others you know) used in the last 3 months? You can tick more than one where applicable.	Yes	No
39	Alcohol		
40	Marijiuana/ Indian Hemp		
41	Cough syrup (codeine)		
42	Cocaine		
43	Solution		
44	Caffeine (kola, Beverages)		
45	Opiods (Morphine, Pentazoscine)		
46	Caffeine (Panadol extra, powerfist, albukun, power horse, etc)		
47	Petrol		
48	Cigarettes		
49	Dried feaccal matter, gutter,		
50	Tramal		
51	Quat		
52	Valium, ranfenol		
53	Amphetamine		
54	Others (specify)		

Routes most commonly used

S/N	QUESTION	RESPONSES.			
	Which of the following routes have you used in the last months?	Oral	Sniff	Injection	Smoke
55	Alcohol				
56	Marijiuana/ Indian Hemp				
57	Cough syrup (codeine)				
58	Cocaine				
59	Solution				
60	Caffeine (kola, Beverages)				
61	Opiods (Morphine, Pentazoscine)				
62	Caffeine (Panadol extra, powerfist, albukun, power horse, etc)				
63	Petrol				
64	Cigarettes				
65	Dried feaccal matter, gutter,				
66	Tramal				
67	Quat				
68	Valium, ranfenol				
69	Amphetamine				
70	Others (specify)				

Section E. Factors responsible for substance use

QUESTION: Why do you think people take these drugs?

S/N	QUESTION Please mark X where applicable.	RESPONSES	
		YES	NO
71	To keep awake		
72	To suppress fatigue		
73	Stimulate/elevate mood		
74	To enhance performance		
75	To get more courage		
76	Because others are taking it		
77	Others (specify)		

Predisposing factors

S/N	QUESTION please mark X where applicable.	RESPONSES	
		Yes	NO
78	Ignorance		
79	Curiosity		
80	Peer influence		
81	History of drug use in the family.		
82	Previous use for medical reason		
83	Personal problems		
84	Other reasons (please specify)		

85. Are your parents still staying together i. Yes ☐ ii. No ☐

86. Does any of the following use drugs?

S/N	QUESTION		
		Yes	No
A	Mother		
B	Father		
C	Sibling		
D	Don't Know		

About your friends. When answering this question, think about out your very close friends with whom you spend the most of your leisure time.

S/N	QUESTION	RESPONSES.			
		None	Half	All	Don't know
87	How many have jobs				
88	How many are commercial motorcycle riders?				
89	How many smoke/drink/ use psychoactive drugs.				

Source of supply.

What are the sources of these drugs? You may choose more than one option where applicable.

S/N	QUESTION please mark X where applicable.	RESPONSES	
		YES	NO
90	Dealers		
91	Street traders		
92	Pharmacy shops		
93	Patent medicine dealers		
94	Hotels		
95	Friends		
96	Family members		
97	Clubs		
98	Others (specify)		
99	Are these substances easily accessible at all times to all ?		
100	Have you personally ever seen illegal drugs being sold in the open street?		

Ease of supply

S/N	QUESTION	RESPONSES.				
	If you wanted to buy these substances right now, how long would it take you to get it:	An hour or less	A few hours	One day	One week	Would be unable to buy it.
103	Alcohol					
104	Marijiuana/ Indian Hemp					
105	Cough syrup (codeine)					
106	Cocaine					
107	Solution					
108	Caffeine (kola, Beverages)					
109	Opiods (Morphine, Pentazoscine)					
110	Caffeine (Panadol extra, powerfist, albukun, power horse, etc)					
111	Petrol					
112	Cigarettes					
113	Dried feaccal matter, gutter,					
114	Tramal					
115	Quat					
116	Valium, ranfenol					
117	Amphetamine					
118	Others (specify)					

Section F. Implications of substance use.

F. (1) General implications of active substance use

S/N	QUESTION please mark X where applicable.	RESPONSES	
		YES	NO
119	Has drinking or other drug use caused problems between you and your family or friends		
120	Has your drinking or other drug use caused problems for you anywhere?		
121	Have you been arrested or had other legal problems? (Dangerous driving, driving while intoxicated, theft, or drug possession.)		
122	Have you lost your temper or gotten into arguments or fights while drinking or using drugs?		
123	When using drugs, are you more likely to do things you wouldn't normally do, such as break rules, over speeding, wrong driving, carry excess load/ passengers etc?		

124 At any time in the past Three month, were you involved in any accident or injury?

a. No . ☐ b .Yes ☐

125. What was the nature of the injury? You may tick more than one option where applicable.

i. Bruises/ laceration

ii. Limb fractures (upper and lower)

iii. Others

126. At anytime in the past three month, were you involved in an argument or quarrel?

b. No.. ☐ b .Yes ☐ .

127. Did you ever damage any object or suffer loss of an item/money as a result of drug?

a. Yes ☐ b. No. ☐

F (2) Perceived Health Implications of Active Drug Use.

A. Physical Health

Interviewer "We're now going to look at your physical health in the past month.

a. Does active use of substances have any health implication? A. Yes ☐ ii. No. ☐

Do you often experience one or more of the following in the last three months? You can choose more than one option.

S/N	QUESTION please mark X where applicable.	RESPONSES	
		YES	NO
129	Poor appetite		
130	Tiredness / fatigue		
131	Nausea		
132	Stomach pains		
133	Difficulty in breathing		
134	Chest pain		
135	Joint pain		
136	Muscle pain		
137	Tremors (shakes)		
138	Other reasons (please specify)		

Psychological Health

Interviewer. "I'm now going to ask you to think about how you have been feeling in yourself.

In the past month, how often have you had the following experiences or feelings?" You can choose more than one option if it applies to you.

S/N	QUESTION please mark X where applicable.	RESPONSES	
		YES	NO
139	Feeling tense		
140	Suddenly scared for no reason		
141	Feeling fearful		
142	Nervousness or shakiness inside		
143	Spells of terror or panic		
144	Feeling hopeless about the future		
145	Feelings of worthlessness		
146	Feeling no interest in things		
147	Feeling lonely		

148. In the last three months, have you ever been sick or hospitalised for any reason?

If yes, what was your complaint?

a) Heart problems
b) Kidney problems
c) Mental confusion
d) Tiredness

149. Can you stay for a day or two without using drugs? Yes ☐ ☐

How do you feel when you do fail to take your drugs?

a. Normal
b. Restless
c. Pain all over my body
d. Body weakness/ tiredness

Appendix III: Hausa Questionaire.

TAKARDAR NEMAN BAYYANI AKAN AMFANI DA KWAYOYIN MAGANI KO SINADARAN KARA KUZARI DA YAN KABU-KABU KE YI A GARIN MINNA, BABBAR BIRNIN JIHAR NEJA, NIJERIYA.

Sunana **ILIYA LABAN DANLAMI.** Ni da abokaina duk dalibai ne daga kwalijin horas da malaman asibiti na jami'ar Ibadan. Ina bincike ne don samun bayyanai kan '**AMFANI DA KWAYOYIN MAGANI KO SINADARAN KARA KUZARI DA YAN KABU-KABU KE YI A GARIN MINNA, BABAR BIRNIN JIHAR NEJA, NIJERIYA**. "

Kasancewarka cikin wannan bincike zai taimaka wajen tsara shirye-shiryen kiwon lafiya da zasu magance matsalar yin amfani da sinadaran kara kuzari da yan kabu-kabu ke yi a garin Minna, babbar birnin Jihar Neja, Nijeriya.

Kana da zabin amincewa ko kin amincewa ka kasance cikin wannan bincike. Ina mai tabbatar maka/ku da cewar duk bayyanan da aka tattara a wannan takardan binciken zai kasance sirri kuma za a yi amfani da su ne domin wannan bincike kawai. Yana da kyau ka san cewar ba lallai/dole ne sai ka rubuta sunna ka a wannan takardar binciken ba.

Mun gode da hadin kan da ka bamu.

YARDA: Na fahimci duk bayyanan da aka yi kuma na amince zan kasance cikin wannan bincike.

Sa hannu…… Kwanan wata……

Don amfanin ofis kadai
Lamba……

SASHEN A. FASALIN JADAWALIN NEMAN BAYANI.

Bayyani. Ka canki bayyani da ya dace da kai ta sanya alamar (X) a cikin a kwatin da aka tanadar.

ko Bazawari.

(1) Fasalin iyali (Iyaye) Jinsi i. Namiji ☐ ii. Mace ☐

(2) Yanayin Aure i. Wanda bai taba Aure ba ☐ ii. Mai Aure ☐

iii. Zama tare da mace amma ba aure. ☐ iv. Wanda suka rabu da iyali. ☐

(3) v. Wanda matarsa ko miji ya mutu ☐ vi. Bazawara ☐

ii. Uba ko Uwa kadai ☐ ii. Mata Daya ☐ iii. Mata fiye da daya ☐

4 Addini i. Kirista ☐ iii.Musulunci ☐

ii. Gargajiya ☐ iv. Sauran Addinai ☐

(Ambato)……..

(4) kabila i. Nupe ☐ ii. Hausa ☐

iii. Gwari. ☐ Iv. Igbo ☐

v. Yoruba ☐ vi. Sauran kabilu (yi bayyani)

(5) Shekarun haihuwa ……

(6) Takardan makaranta.

iii. Wanda bai yi boko ba. ii. Wanda yayi makarantar islamiya ko kur'ani. ☐

iv. Makarantar firamare . □da malamai □

Iv. Makarartar sakandare ko kuwa ta horars

v. Karatun NCE ko Diploma □

Vi. Digiri na farko ko babban diploma □

vii.Babar Digiri ko Digirgir. □

Viii. Sauran karatun idan kwai…….....

SASHEN B. BAYYANI KAN FAHIMTA KAN ILLAR SINADARAI KO KWAYOYI DA AKE AMFANI DA SU DON KARA KUZARI GA RAYUWAR MAI AMFANI DA SU.

S/N	Tambaya.	Amsoshi.	Score.
8	Me ka fahimta da sinadaran kara kuzari?	a. Sinadarai ne da ake amfani dasu don samun karfi da kuzarin yin aiki. b. Sinadarai ne da ake amfani dasu don magance cututtuka c. Sinadarai ne da ake amfani dasu wajen yi wa dabbobi magani d. Sinadarai ne da ke sa ciwon hauka.	2 0
9	Yin amfani da sinadaran kara kuzari na nufin	a. Amfani da kwayoyin magani ba tare da dalilin magance cuta ba b. Mai cikkaken lafiya yayi amfani da kwayoyin magani a asibiti. c. Yin amfani da magani ba cikin ka'ida ba. d. Amfani da magani a kai akai.	2 0
10	Wane lokaci ne ya kamata muyi amfani da kwayoyin magani?	a. Don magance wata cuta b. A duk sa anda muke so mu sami Karin karfi ko kuzari c. Don su kara mana dauriyar aiki d. Duk sa anda muka jin yin haka.Only for medical reasons	2 0 0
11	Daya daga cikin wadannnan ba dalilin da ke haddasa amfanin da sinadarin kar kuzari bane.	a. Samun kakyawar tarbiyya b. Tarrayya da abokai c. Neman sani d. Koyo daga dattijan banzaGood upbringing	2 0 0 0
12	Me ke haddasa yin amfani da kwayoyin maganin kara kuzari tsakanin jama'a?	a. Don kara karfi da kuzari b. Don kaji kanka daidai c. Don magance wata cuta d. Don cimma wata manufa ta daban	2 0
13	Yawan amfani da kwayoyin maganin bashi da kyau saboda	a. Yana iya kawo barazana ga lafiya b. Yana iya sa dogaro ga kwayoyin c. Zai kara mana bassira d. Yana sa muji kamar mun dara kowa.	2 0

14	Me ka fahimta game da illar yin amfani da sinadaran kara kuzari?	a. Wasu cuttutuka dake kawo cikas ga lafiyar mutum kan samo asali ne ta wurin amfani da wadannan sinadarai. b. Wadannan sinadarai su kan kawo cikas ga lafiyar mutum baki dayarsa. c. Suna sa mai amfani dasu yaji dadi sosai d. Ni ban sani ba.	2 0
15	Shin yawan amfani da wadanan sinadarai yana kawo bara zana ga lafiyar mai amfani da su?	a. E, b. A'a c. A'a sai idan ana amfani das u da yawa/ sosai. d. Ban sani ba	2 0
16	Wadanne irin illoli ne yawan amfani da sinadaran nan ke haddasawa?	a. Yana kawo ciwon hauka idan ba an magance shi ba b. Yana kawo cin gaba a rayuwa. c. Yana bada sa'a a rayuwa. d. Yana rage zaman banza.	2 0
17	Wasu daga cikin aibin amfani da sinadaran kara kuzari sun hada harda.	a. Yana iya kawo cutar hanta ko koda b. Baya haifar da cutar SIDA ko cutar karya garkuwar jiki. c. Yana kariya daga iskoki ko sammo. d. Yana sa mutane su kama sana'a.	2 0
	Addadin makin bayanai = 20		
	Mafi yawan maki amsoshi X		
	Matsayin kowane bayani (maki) 0-5, mara kokari 6-10, wanda ya dan yi kokari, 11-15,wanda yayi kokari 16-20 wanda yayi matukar kokari.		

SASHEN C. FAHIMTA GAME DA ILLOLIN YIN AMFANI DA SINADARAI KO KWAYOYIN MAGANI MASU KARA KUZARI TA HANYAR DA BAI DACE BA.

Bayyani. Zabi daya daga cikin amsoshin nan uku, wanda kake ganin yafi dacewa da tambayar da aka yi. Ana bukatar ka nuna yardarka (A), Rashin yardarka(D) ko kuma rashin tsayar da shawara.(UD)

S/N	Tambaya / Batu	Amsoshin Tambayoyi			Maki
		Yarda (A)	Rashin tsayar da shawara (UD)	Rashin yarda. (D)	
18	Na kan yi watsarraaki na da ke amfani da sinadaran kara kuzari kallon banza (A= 2pts, UD = 0pts, D = 0PTS.)				
19	Yan achaba su daina amfani da kwaya don baya kara masu kome fiye da wadanda ba su amfani dasu. (A= 2pts, UD = 0pts, D = 0PTS.)				
20	Yin amfani da sinadarai ko kwayoyin kara kuzari ta yadda ya dace bay a da wata illa. (A= 0pts, UD = 0pts, D = 2PTS.)				
21	Kada a hana yin amfani da sinadaran ko kwayoyin magani kara kuzari do min basu kawo wata illa mai tsanani ga rayuwa idan har anyi amfani das u ta hanyar da ta dace. (A= 0pts, UD = 0pts, D = 2PTS.)				
22	Kar ‘yan achaba su rika amfani da sinadaran ko kwayoyin magani masu kara kuzari saboda illar su ga rayuwa (A= 2pts, UD = 0pts, D = 0PTS.)				
23	Ba daidai bane cewa yin amfani da sinadarai ko kwayoyin magani masu kara kuzari na kara yawan aukuwan hadurra. (A =0pts, UD =0PTS, D =2pts)				

24	Amfani da sinadarai ko kwayoyin masu kara kuzari na kare yan achaba daga iska da sanyi (A= 0pts, UD = 0pts, D = 2PTS.)				
25	Amfani da sinadarai ko kwayoyin kara kuzari na daya daga cikin abubuwan dake say an achaba ke mugun tuki (tukin ganganci) ba tare da bin dokoki ba. (A= 2pts, UD = 0pts, D = 0PTS.)				
26	Masu amfani da sinadarai ko kwayoyin kara kuzari sun fi kasancewa cikin rikici ko hadaruruka (A =2pts, UD =0PTS, D =0pts)				
27	Ina kayyade yadda nake amfani da sinadari ko kwayoyin kara kuzari. (A= 0pts, UD = 0pts, D = 2PTS.)				
	Jumlar makin adadin fahimta = 20				
	Jumlar adadain abinda ake iya samu na fahimta.				
	Matsayin kowane fahimta. **0-10pts =fahimtar da bai yi daidai** **11-20pts, = fahimtar da tayi daidai.**				

SASHEN D

YAWAN ANFANI DA SINADARAI KO KWAYOYI

Gargadi ga mai yin tambaya

- Ga kowanne tambaya da aka yi, a sa alamar X a karkashin amsa "E'', idan kuma amsar a'a ne, to a bar gurbin a bude.
- Mai tambaya ya karanta tambayoyin da kyau ta yadda wanda ake yi ma tambayoyin zai fahimta.

Zamu fara ta hanyar duba yadda ka yi anfani da sinadarai ko kwayoyi daban-daban a tsakanin watanni uku da suka shude.

	TAMBAYOYI / A sa alamar X a inda ya kamat	AMSOSHI	
		E	A'a
28	Ka taba amfani da kwayoyin magani ba tare da umurnin ma aikatan kiwon lafiya ba?		
29	Kana yin amfani da kwayoyi ko sinadarai don su kara maka karfi da kuzari ko ko su sa kayi aiki na lokaci mai tsawo?		
30	Ka san wani dan achaba da ke kusa da kai da ke amfani da kwayoyi ko sinadarai?		
31	Zaka iya bada adadin yawan yan achaba da ke amfani da kwayoyi ko sinadarai, a misali cikin mutum goma, mutum nawa ke amfani das u?		
32	A ganinka, yin amfani da kwayoyi ko sinadaran kara kuzari yana karuwa ne ko raguwa?		
33	Wa ya koya maka amfani da wadannan sinadarai? a) Dangi na b) Abokai na c) Abokan aiki A rubuta A, B, ko C.		
34	Ka kan yi amfani da kwayoyi ko sinadaran fiye da daya a lokaci daya?		
35	Kana iya yin mako guda ba tare da ka yi amfani da kwayoyi ko sinadarai ba?		
36	Kakan yi amfani da kwayoyin a kai-akai ne sannan ka ji kanka yadda kake so		

37	Kana iya barin yin amfani da kwayoyi kko sinadarai a duk lokacin da ka so?		
38	Kana shekara nawa ka fara yin amfani da kwayoyi ko sinadarai?		

	TAMBAYOYI:- Wanne daga ikin wadannan kwayoyi ka yi mafani dashi a tsakanin watanni uku da suka shige Kana iya zaben fiya da daya idan akwai bukatar yin haka.	AMSOSHI	
		E	**A'a**
39	Giya		
40	Ganyen wiwi		
41	Maganin Tari (codeine), (tutolin)		
42	Hodar iblis (cocaine)		
43	Sholisho		
44	Goro (caffeine)		
45	Shayi (caffeine, Bevearages)		
46	Kwayoyin panadol Extra ko alabukun da dai sauran makamantansu		
47	Man fetur		
48	Tabarr Tobako/Sigari		
49	Tabo na magunar ruwa/ salga/ bayi.		
50	Tramal		
51	Quat		
52	Valium, ranfenol, blueboy		
53	Amphetamine, (arungumi zaki) duniya duka level.		
54	Wasu kwayoyi ko sinadarai da ba'a ambataba, (A fadi sunayensu)		

Ta wane kafa ka fi san yin amfani da kwayoyin ko sinadarai?

	TAMBAYOYI	AMSOSHI			
	Wanne daga cikin wadannan kafafi ka yi amfani das hi cikin watanni uku da suka gabata?	Ta baki	Shakawa	Ta yin alura	Duka
55	Giya				
56	Ganyen wiwi				
57	Maganin Tari (codeine), (tutolin)				
58	Hodar iblis (cocaine)				
59	Sholisho				
60	Goro (caffeine)				
61	Shayi (caffeine, Bevearages)				
62	Kwayoyin panadol Extra ko alabukun da dai sauran makamantansu				
63	Man fetur				
64	Tabarr Tobako/Sigari				
65	Tabo na magunar ruwa/ salga/ bayi.				
66	Tramal				
67	Quat				
68	Valium, ranfenol, blueboy				
69	Amphetamine, (arungumi zaki) duniya duka level.				
70	Wasu kwayoyi ko sinadarai da ba'a ambataba, (A fadi sunayensu)				

Dalilan da ke haddasa yin amfani da sinadarai ko kwayoyi?

Me ke sa ka yin amfani da wadannan kwayoyi ko sinadarai?

	TAMBAYOYI / A sa alamar X a inda ya dace	**AMSOSHI**	
		E	**A'a**
71	Don kaurace ma barci		
72	Don warware gajiya		
73	Don ya kara mun karfin jiki		
74	Don ya kara mun aiki		
75	Don ya kara mun kuzari		
76	Don naga wasu na amfani da shi		
77	Wasu dalilan daba a ambata ba a nan (Ambato)		

Wasu dalilan na daban

	TAMBAYOYI / A sa alamar X a inda ya dace	**AMSOSHI**	
		E	**A'a**
78	Rashin sani		
79	Neman kwakwaf/neman sani		
80	Hulda tare da tsararraki		
81	Gado daga dangi		
82	Amfani da kwayan magani a baya don neman lafiya		
83	Matsalar kaina		
84	Wasu dalilai dab a a ambata ba anan (A ambatosu)		

85. Iyayenka na tare da juna har yanzu? i. E ☐ ii. A'a ☐

86. Daga cikin wadannan mutanen naka, akwai wanda ke amfani da kwayoyi

S/N		E	A'a
A	Uwa		
B	Uba		
C	Kanne/Yanne		
D	Ban sani ba		

Dangane da Abokanka:- A yayin amsa wannan tambayoyi, ka yi tunanin abokanka na kud-da-kud wanda a ko da yaushe kuna tare, sai bacci ke raba ku.

	TAMBAYOYI	AMSOSHI			
		Ba ko daya	Rabinsu	Dukansu	Ban sani ba
87	Nawa keda aikin yi cikinsu?				
88	Nawa ke sana'ar Achaba daga cikinsu?				
89	Nawa daga cikinsu ke amfani da kwayoyi ko sinadaran kara karfi ko kzari?				

Hanyoyin samu kwayoyin

Ta wadanne hanyoyi ake samun wadannan kwayoyin?

	Asa alamar 'X' a inda ya dace, Kana iya bada zabi fiye da daya idan akwai bukatar haka.	AMSOSHI	
90	Dillalai	**E**	**A'a**
91	Masu shaguna a kan layi		
92	Shagunan sayar da magunguna		
93	Dillalan magunguna		
94	Otel		
95	Abokai		
96	Dangi		
97	Kungiyoyi		

98	Wasu hanyoyi daba a ambata ba anan (A fayyace su)		
99	Ana iya samun wadannan kwayoyi ko sinadarai a saukake kowane lokaci?		
100	Ka taba gani da idanuwanka inda ake sayar da wadannan kwayoyi da aka haramta a fili?		

101. Sa' o' i nawa kake aiki a yini daya?.....

	TAMBAYOYI Idan kana so ka sayi wadannan kwayoyi ko sinadarai, tsawon wane lokaci zai dauke ka ka samo	AMSOSHI				
		Awa daya	Yan awoyi	Kwana daya	Sati daya	Ina iya kasa samowa
102	Giya					
103	Ganyen wiwi					
104	Maganin Tari (codeine), (tutolin)					
105	Hodar iblis (cocaine)					
106	Sholisho					
107	Goro (caffeine)					
108	Shayi (caffeine, Bevearages)					
109	Kwayoyin panadol Extra ko alabukun da dai sauran makamantansu					
110	Man fetur					
111	Tabarr Tobako/Sigari					
112	Tabo na magunar ruwa/ salga/ bayi.					
113	Tramal					
114	Quat					
115	Valium, ranfenol, blueboy					
116	Amphetamine, (arungumi zaki) duniya duka level.					
117	Wasu kwayoyi ko sinadarai da ba'a ambataba, (A fadi sunayensu)					

SASHEN E: ILLOLIN YIN AMFANI DA KWAYOYI KO SINADARAN KARA KUZARI KO KARFI

H(1) Illolin gama gari.

	TAMBAYOYI/ A sa alamar 'X' a inda ya dace	AMSOSHI	
		E	A'a
118	Shan giya ko yin amfani da kwayoyi ko sinadarai ya taaba janyo maka matsala da danginka ko abokanka?		
119	Shan giyan ka ko yin amfani da kwaya ya taba jawo maka matsala a wani waje?		
120	Hukuma ta taba kamaka, ko kuwa ka taba shiga wata matsala a hannun hukuma a bias dalilin tukin ganganci ko tuki cikin maye, ko sata ko kuma don an kama ka da kwayoyin daaka haramta		
121	Ka taba shiga takandama ko fusata ko kuma yin fada a sa'ilin da kake shan giya ko kwayoyi?		
122.	Idan kama amfani da kwaya, kakan yi wasu abubuwan da bai kamace ka ka yi ba, kamar karya doka, gudu fiye da ka'ida, ganganci, dauka fasinja fiye da ka'ida.		

123: A tsakanin watanni uku da suka shige, ka taba yin hatsari ko jin ciwo

i. E ☐ ii. A'a ☐

124. Yaya fasalin ciwon da ka ji yake? Kana iya zaben amsa fiye da daya idan akwai bukatar yin hakan.

i. Kujewa ☐

ii. Gocewa ko tsagewar kashi ☐

iii. Wasu ciwukan daba a ambata ba ☐

125. A tsakanin watanni uku da suka shige, ka kasance cikin wani gardama ko yin fada?

i. E ☐ ii. A'a ☐

126. Ka taba bata wanni abu ko batar da wani abu kamar kudi a bias dalilin shan kwaya?

i. E ☐ ii. A'a ☐

Wasu illolin amfani da kwaya ga lafiyar mai shan ta

127. A ganinka, yawan shan kwaya ko sinadarai na da ila ga lafiyar mai shanta?

i. E ☐ ii. A'a ☐

Kakan fuskanci daya ko fiye da hakan daga cikin jerin wadannan matsaloli cikin watanni uku da suka shige?

	TAMBAYOYI/ A sa alamar 'X' a inda ya dace. Kana iya zaben matsalolin fiye da daya.	AMSOSHI	
		E	A'a
128	Rashin marmarin cin wani abu		
129	Gajiya		
130	Jin yin amai		
131	Ciwon ciki		
132	Matsalar numfashi		
133	Ciwon kirji		
134	Ciwon gabobi		
135	Ciwon		
136	Karkarwa ko warar kiji		
137	Wasu dalilin dab a a ambata a nan ba (A fayyacesu)		

2.2 Illoli ga lafiyar Hankalin.

Mai tambaya: Yanzu zan tambaye ka, a tunaninka, yadda kakan ji hankalinka.

A tsakanin wata uku da suka wuce, yaya kakan ji jikinka ko hankalinka daga cikin wadannan matsaloli?

	TAMBAYOYI/A sa alamar 'X' a inda ya dace	AMSOSHI	
		E	A'a
138	Jin hankalinka na tashi		
139	Tsorata ba tare da dalili ba		

140	Jin kamar ana tsoronka		
141	Kaduwa		
142	Jin tashin hankali		
143	Jin ka gaji da rayuwa		
144	Jin kamar ba ka da amfani		
145	Jin ba ka damu da komai ba		
146	Jin kadaici		

147. A tsakanin watanni uku da suka shige, ka yi rashin lafiya ko an kwantar da kai a asibiti?

Idan E, to menene damuwarka

a) Ciwon zuciya
b) Ciwon koda
c) Rudani ko rikicewar hankali
d) Gajiya

148. Zaka iya yin kwana daya ko biyu ba tare sa ka sha kwaya ba?

i. E ☐ ii. A'a ☐

149. Yaya kakan ji idan baka samu ka sha kwaya ba?

a) Daidai
b) Hankalina duk sai yabachi/ baya kwanchiya.
c) Jikina ya kan yi ciwo
d) Nakanji kasala ko gajiya a jikina.