

Substance Misuse Among Amateur Footballers in Kano State, Nigeria

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Abstract— Substance abuse or drug misuse is an existing act in sport that has occurred over the years. This has led to the death of many athletes and has drawn the attention of both national and international sport institutions. The aim of this study was to investigate substance misuse by amateur footballer in Kano metropolis in Nigeria. A descriptive cross-sectional study by structure interview of multistage sampling. 165 amateur footballers residing in Kano metropolis of Nigeria were sampled. This study showed a significant increase in the prevalence of substance misuse by amateur footballers of which marijuana was identified as the most common used substance. The high increase of substance misuse by amateur footballers in Kano metropolis was attributed to lack of employment, peer pressure, as well as lack of education or awareness on the effect of substance misuse. Therefore, it is imperative that policies are enacted and committed set up to regulate behaviors of amateur footballers.

Index Terms— Amateur Footballers, Cross-sectional, Kano State, Literacy level and substance misuse, Nigeria, Substance misuse prevalence, Substance use among footballers,

1 INTRODUCTION

Under certain conditions, the use of substances that affect mood and behavior is normal, at least as gauged by statistical frequency and social standards. It is normal to start the day with caffeine in the form of coffee or tea and also to take coffee with meals. Many of us take prescription drugs that calm us down or ease our pain. However, some psychoactive substances, such as cocaine, marijuana, and heroin are illegal and used illicitly. Others, such as anti-anxiety drugs (such as valium and Xanax) and amphetamines (such as Ritalin) are available by prescription for legitimate medical uses. Still others, such as tobacco (which contains nicotine, a mild stimulant) and alcohol (anti-depressant), are available without prescription, or over-the-counter. Ironically, the most widely and easily accessible substances which are tobacco and alcohol cause more deaths through sickness and accidents than all illicit drugs combined (Nevid, et al., 2006, pg 291-292).

The explosion of psychoactive drug use in Nigeria, especially in Kano State and Sub-Saharan Africa in general closely mirrors the downturn of the economy in Africa and ensuring high level of unemployment and poverty, particularly among youths (Ahmed, 2013). Drug abuse in northern Nigeria's largest city has been on the rise in recent years with anti-narcotic officials and experts warning of serious consequences if the problem is not tackled. Kano has the country's largest drug abuse rate based on the number of seizures, arrest of addicts and conviction of arrested dealers, according to National Drug and Law Enforcement Agency (NDLEA) in 2014 (NDLEA, 2014).

1.1 Statement of the Problem

Drug abuse as a major public health problem impacts society on multiple levels. Directly or indirectly, every community is affected by drug abuse and addiction, as is every family. Drugs take a tremendous toll on our society at many levels. The costs of drug abuse are as substantial as that of other chronic conditions like diabetes and cancer. The cost includes health care expenditures, lost earnings, cost associated with

crime and accidents. This is a huge burden that affects all of society. Americans perceive drug abuse as a major public health problem. Many of America's top medical problems can be directly linked to drug abuse:

1. Cancer: Tobacco contributes to 11-30% of cancer deaths.
2. Heart disease: Researchers have found a connection between the abuse of tobacco, cocaine, Methylenedioxymethamphetamine (MDMA), Amphetamines, and steroids and the development of cardiovascular disease. Tobacco is responsible for approximately 30% of all heart disease deaths each year.
3. HIV/AIDS: Approximately one-third of AIDS case reported in 2000 (11,635) and most cases of hepatitis C (Approximately 25,000 in 2001) in the United States are associated with injection drug use.
4. Approximately half of pediatric AIDS cases (4,700 reported through 2002) result from injection drug use or sex with injection drug users by the child's mother (National Institute of Drug Abuse (NIDA), 2005) Many of America's top social problems also relate to or impact drug abuse:
 1. Drugged Driving: The National Highway Traffic Safety Administration estimates that drugs are used by approximately 10 to 20 percent of drivers involved in crashes, often in combination with alcohol.
 2. Violence: At least half of the individuals arrested for major crimes including homicide, theft, and assault were under the influence of illicit drugs around the time of their arrest.
 3. Stress: Exposure to street is one of the most powerful triggers of substance abuse in vulnerable individuals and of relapse in former addicts.
 4. Child Abuse: At least two-thirds of patients in drug abuse treatment centers say they were physically or sexually abused as children.

Each year approximately 40 million debilitating illnesses or

injuries occur among Americans as the result of their use of tobacco, alcohol, or another addictive drug. In 2000, approximately 460,000 deaths were attributable to illicit drug abuse and smoking (NIDA, 2005). According to the FIFA (Federation Internationale de Football Association) database, the incidence of positive cases of substance abuse over the past 11 years was 0.12%, with about 0.42% in 2004 (based on the assumption of 20,750 samples per year) and 0.37% in 2005 (Dvorak, 2006). In a research done in Cameroun capital Yaoundé on Football and doping: study of African amateur footballers The number of footballers who claim to drink or smoke frequently (for social purposes) and those who claim to do so before matches (for doping purposes) suggest that intake of certain substances in our football circles is quite high and that women are not excluded. The lack of epidemiological data on smoking and drinking in Cameroon limits interpretation of the results. Local players seem to smoke more than players in the two other groups. Consumption of alcohol in general, and methylated spirits and bilibili in particular, is higher after matches than before, which suggests "the third half-time" phenomenon. According to Bailly et al, 34.9% of sportsmen admit to drinking alcohol after physical activity (Bailly et al. 1993). However, intake before matches suggests the need to implement preventive measures. The results of the study also suggest that being part of an elite group (male and female) may reduce alcoholic intake in general, and methylated spirits and bilibili. Alcohol consumption and tobacco use by sportsmen has been the subject of previous scientific literature.

In Nigeria, a striking report by National Drug Law Enforcement Agency (NDLEA) showed that about 25% of people arrested for drug trafficking and are being treated for drug related illnesses are youths. The report shows statistically that young people start engaging in drug abuse as early as eleven years. This is responsible for the spiraling number of sanities, waywardness and rascality among men and women, and those spending their days serving jail terms in other continents on the account of their involvement in drug trafficking (NBF news, 2010). Kano has the country's largest drug abuse rate based on the number of seizures, arrest of addicts and conviction of arrested dealers, according to National Drug and Law Enforcement Agency (NDLEA) in 2014 (NDLEA, 2014).

1.2 Justification for the Study

It is well known that substance abuse affects European, American and Australian amateur sportsmen as well as African and European professional sportsmen. It is also notable that over the past two decades some sub-Saharan African countries have been competing on a par with their European and South American counterparts at World and Olympic levels. In view of the requirements of high-level competition, we would expect some African footballers to use lawful or unlawful substances to meet those requirements. The lack of data on the use and awareness of drugs by Black African amateur footballers prevents us from knowing the reality as it reflects on professional African Footballers. It is necessary to collect such data before preventive measures can be implemented, as appropriate (Ama et al., 2003). It is clear that misuse of licit and illicit substance has a profound effect in terms of harm across all

areas of the society. This includes high cost in terms of health care provision, social and economic cost as well as effects on individual and their families. Kano is one of the states that have the highest number of amateur footballers of which mainly are the youths. The Nigerian Drug Law Enforcement Agency has dubbed Kano among the states with the highest number of drug traffickers and addicts in Nigeria of which are mainly the youths. As such it has become a society menace that affects everyone in the community. Each year several hundreds of Kano commuters die in road crashes and thousands more suffer serious injuries and disabilities. Apart from solution sniffing, most of these crashes are linked to riding of driving under the influence of alcohol and long-term exposure to tobacco, marijuana, solution sniffing and sedative use (World Health Organization (WHO), 2021)

1.3 Aims and Objectives.

General objective is to determine the correlates of substance abuse among Amateur footballers within Kano metropolis.

Specific objectives:

1. To determine the prevalence of substance, abuse among Amateur footballers within Kano metropolis.
2. To determine the substances commonly abused and their sources.
3. To determine the factors associated with substance abuse among Amateur footballers within Kano metropolis.

2 METHODOLOGY

2.1 Study Area

Kano is the capital city of Kano State in Northwestern Nigeria. It is located on latitude 12° 00' N and longitude 8° 31' E in the Sahelian geographic region south of the Sahara. Kano state, the largest city in Nigeria with a population of 11,942,419 based on 2013 United Nations Population Fund (UNFPA) (UNFPA,2012) was created on 27th May 1967 from part of the then Northern region and borders the following states: Katsina to the northwest, Jigawa to the northeast, as well as Bauchi and Kaduna to the south. It covers a land area of 20,760 sq km and is predominantly inhabited by the Hausa people who are largely Muslims. As in most parts of the Northern Nigeria, the Hausa language is widely spoken. There are a number of federal and state-owned institutions, including Bayero University, Aminu Kano Teaching Hospital, Kano University of Science and Technology, North West University and Muritala Muhammad Specialist Hospital (Britannica, 2021).

2.2 Study Site

The study was carried out in Kano metropolis which comprises eight Local Governments Areas namely: Kano municipal; Dal; Gwale; Fagge; Nassarawa; Tarauni; Ungogo; and some part of Kumbotso Local Government Areas and covers an area of 499 sq km (Britannica, 2021). Its metropolitan population of 2,828,861 makes it the second largest city in Nigeria.

2.3 Study Design

The study was a descriptive cross-sectional study.

2.4 Study Population

The study was carried out among amateur footballers within Kano metropolis. Inclusion criteria included registered/unregistered amateur football clubs, male footballers within the age 15 years - 44 years. Female footballers and male footballers who declined were excluded from the study.

2.4 Sample Determination

The minimum sample size was calculated using the formula

$$n = \frac{Z^2 P q}{d^2}$$

Where

n= Minimum sample size

Z= The standard normal deviate corresponding to 95% confidence interval. The value obtained from a normal distribution table is 1.96.

P= Prevalence from a past study = 89% (0.89) which was obtained from a study that was done in Lagos State, Nigeria on knowledge, attitude, and practice of drug abuse among sports men and women.61

q=complementary probability=1-p, q= 1-p=1-0.89=0.11

d= Degree of precision = 5%= 0.05.

Therefore:

$$N = (1.96)^2 \times 0.89 \times 0.11 / (0.05)^2$$

$$N = (1.96)^2 \times 0.0979 / 0.0025$$

$$N = 0.37609264 / 0.0025$$

$$N = 150.43 \approx 150$$

To allow for non- response, the sample size would be adjusted by an attrition rate of 10%.

Therefore, adjusted sample size $N = 150 + 15 = 165$

Sampling interval = sampling frame/ sample

$$\text{size} = 200 / 165 = 1.2 \approx 1$$

2.5 Sampling Technique

A multistage sampling technique was used for subject selection. Four (4) local government areas (Kano municipal, Nassarawa, Tarauni, and Kumbotso) were randomly selected from the eight local government areas that make up Kano metropolis. Owing to the difficulty in obtaining the list of amateur football clubs (registered and unregistered) in Kano metropolis, chain-referral (snowball) sampling method was used to select five (5) amateur football clubs in each of the selected local government areas. Then ten (10) football players were randomly selected in each football pitch and interviewed using the questionnaire, giving a total of 50 (5×10) players per Local Government. Where more than ten players were found in the football pitch, the ten were selected by a single one-time ballot.

2.6 Ethical Consideration/Data Collection Tool

A letter of introduction was collected from the Department of Community Medicine, Faculty of clinical Sciences, College of

Health Sciences, Bayero University Kano, in order to obtain necessary permission from the state chapter of Football Association (FA) Nigeria and informed consent obtain from respondents prior to recruitment into the study.

The questionnaire used was interviewer administered, comprise of three sections and 34 items. Section A contains questions for socio-demographic data, including average daily income. Section B assesses the knowledge of substances abused. Section C assess the practice of substances abused.

2.7 Data Collection Technique and Analysis

The data was collected by interviewing the respondents using pre- tested structured interviewer administered questionnaire. Data was analyzed by the use of computer statistical software, SPSS version 20.0 and were presented in the form of numbers (frequencies, percentage etc.), tables, figures and charts (pie, bar etc.) drawn using Microsoft word and Microsoft excel. Quantitative data were summarized using mean and standard deviation while categorical data were summarized using percentages, figures and charts. Respondents' knowledge of substance abuse was assessed as follows, each correct response attracted one (1) point whereas wrong or I don't know attracted no point. Points were then converted into percentages. A score of $\geq 70\%$ was classified as good knowledge, a score of 40-69% was considered fair and a score of $< 40\%$ was considered as poor knowledge. In addition, a statistical test of significance (χ^2 -test) was applied to determine statistically significant associations between qualitative variables whereas a student t-test was used to associate the mean scores between quantitative variables. A p value of less than or equal to 0.05 was considered significant.

2.8 Limitations of the Study

Some respondents were not willing to volunteer information concerning their usage of drugs/substance despite adequate explanation that the information volunteered will in no way be used against them. Some respondents might have considered the substance they used 'non-drugs' and thus answer in the negative as such the respondents have to be asked in a careful manner so as not to feel litigated.

3 RESULTS

3.1 Physical properties of the study participants

165 questionnaire sheets were administered out of which 161 were returned giving a response rate of (97.57%). Majority of the respondents were aged 24-28 (49.1%) with 120 (74.5%) of the respondents being Hausa/Fulani by tribe.

TABLE 1
AGE DISTRIBUTION OF THE REpondENTS

AGE	Frequency	Percent (%)
<18	2	1.2
19-23	43	26.7
24-28	79	49.1
29-33	23	14.3
34-38	10	6.2
39-44	4	2.5
Total	161	100.0

TABLE 3
SUBSTANCE PREVIOUSLY USED RESPONDENTS

Substance	Frequency	Percent (%)
Beer	18	11.2
Cigarette	13	8.1
Marijuana	41	25.5
Benzodiazepines	3	1.9
Inhaler	3	1.9
Opiod	18	11.2
None	65	40.4
Total	161	100.0

TABLE 2
ETHNIC DISTRIBUTION OF THE RESPONDENTS

Ethnicity	Frequency	Percentage (%)
Hausa/Fulani	120	74.5
Yoruba	22	13.7
Others	15	9.3
Total	161	100.0

TABLE 4
SUBSTANCE CURRENTLY USED BY RESPONDENTS

Substance	Frequency	Percent
Beer	11	6.8
Cigarette	17	10.6
Marijuana	37	23.0
Inhaler	1	.6
Cocain	2	1.2
Opiod	12	7.5
None	81	50.3
Total	161	100.0

3.2 PREVALENCE OF SUBSTANCE ABUSE AMONG AMUETER FOOTBALLERS

Of the 161 participants, 90.06% of the respondents had knowledge about the effects of substance abuse which mainly include mood or affect changes. Overall 51.55% of the respondents have history of substance (n=83). The prevalence of substance abuse was 49.07% (n=79) among footballers. The most abused substance was marijuana (n=37, 25.5%). Others are cigarette (n=17), opioid (n=12), cocaine (n=2), beer (n=11), and inhaler (n=1). The substance abused was taken occasionally by 27.3% of the respondents while 13% took it more than once a day.

3.3 CORRELATES OF SUBSTANCE USE AMONG FOOTBALLERS

Multivariate regression analysis shows that substance use was strongly associated with age, secondary level of literacy (n=48, p value = 0.000), and not to have been suspended in the last one year due to substance use (n=79, p value 0.000). Age (mid 20s, n=35, 22.4%) and being single (n=71, 44.1%) was associated with substance use but the p values from regression showed no significant correlation.

TABLE 5

RELATIONSHIP BETWEEN LITERACY LEVEL AND PRACTISE OF SUBSTANCE ABUSE

Literacy Level	Currently Uses Any Substance		Total
	Yes	No	
Qur'anic	14	12	26
Primary	5	2	7
Secondary	48	25	73
Post-Secondary	10	39	49
None	2	4	6
Total	79	82	161

Chi-square=26.469 Df=1 P-value=0.000 (significant)

TABLE 6
RELATIONSHIP BETWEEN PRACTISE OF SUBSTANCE ABUSE AND BEEN SUSPENDED FROM PLAYING IN THE LAST ONE YEAR DUE TO SUBSTANCE ABUSE

Currently Uses Any Substance	Ever Been Ssuspended From Playing in the Last One Year due to Substance Abuse			Total
	Yes	No	None	
Y E S	20	59	0	79
N O	2	20	60	82
Total	22	79	60	161

Chi-square=93.957 Df=2 P-value=0.000(significant)

4 DISCUSSION

In the current study, overwhelming proportion (90.06%) of the respondents had prior knowledge of the effects of substance abuse. However, the study found that the prevalence of substance abuse among amateur footballers was high (49.04%). Other studies also show similar results. A study conducted in Jos among private and public secondary schools showed that the prevalence of substance abuse was 22.1% and 15.3% respectively (Onoja, 2010). Again, according to the United Nations Office on Drugs and Crimes National study conducted

among the general population, the prevalence of substance use was 12.0% in North-West geopolitical zone of Nigeria (United Nations Office of Drugs and Crimes, 2018). The reason for the lower prevalence could be attributed to the fact that the current study targeted amateur footballers who naturally fall within the age group which are believed to be more susceptible to substance abuse. Additionally, the fact the study focused mainly on the male population of amateur footballers, could also have contributed to higher risk as revealed by Okataku et al. (2014), their study showed that being male is a significant risk factor of substance abuse (Okpataku et al., 2018). The most currently abused substance among the respondents was marijuana (23%), additionally, larger proportion (41%) with history of substance abuse had previously used marijuana. This corroborates the findings of a study done on substance related mental illness in Maiduguri in which 85% of the respondents were using marijuana (Williams and Willikins, 1995). Apart from marijuana, findings from the study showed that the respondents abused other substances such as cigarette (10.6%), opioids (7.5%), beer (6.8%) and cocaine and inhalants (1.8%). The larger proportion (44.7%) of the respondents who abuse substances sourced them from the ghetto. Other common sources include medicine vendors (8.1%), roadside hawkers and provision stores (5%). Furthermore, 87% of the study population source information about substance from friends compared to 19.8% that source information from other sources. Our study shows an association between secondary literacy level and substance abuse, though this was not statistically significant (p value =0.000). In a study by Okpataku et al. (2018), their result showed that primary literacy level was also associated with substance abuse (Okpataku et al., 2018). However, their study population was dissimilar with the population in the current study. In the current study, we found that being single (44.1%) was associated with substance use. This is in line with the study by Heinz et al. (2009) who reported that marriage is a protective factor against drug use (Heinz et al., 2009). Nevertheless, the association in our study was not statistically significant. We also found that being in mid 20s (22.4%) was associated with substance use, however, the association was not statistically significant (p value = 0.000) in our study. A study done in Maldives on rapid situation assessment among 204 drug users found their mean age to be 21.4 years (Ramlagan et al., 2010)

6 CONCLUSION

Substance abuse was common among amateur footballers in this study. There was an association between age, and secondary literacy level, however, the associations were not scientifically significant.

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