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*Full Length Research Paper*

# Knowledge, Attitude and Practice on Drug Abuse among Sports Men and Women in Lagos State, Nigeria

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**This study was conducted to determine the knowledge, attitude and practice on drug abuse otherwise known as doping among sports men and women. This was a cross-sectional study based on a self-report questionnaire which was carried out among sports persons at the National Stadium, Surulere, Lagos. Systematic random sampling was used to select 345 participants (208 males and 137 females). The data from the study was analysed using frequency measures and chi-square procedure. Findings revealed a fair level of knowledge on the harmful effects and health implications of drug abuse for performance enhancement among study participants. According to the participants' perception and behavioural attitude, respondents (44.4%) feel that someone should use drugs to boost performance in sports while 55.6% of the respondents do not agree with such attitude. Most respondents (56.0%) perceive most achievement records in sports to be related to drug use. The difference in the attitude towards doping between respondents level of education is significant ($p<0.05$). The respondents admitted that they have used the following prohibited drugs; alcohol (57.2%), ephedrine (11.8%), codeine (8.2%), steroid (5.6%), cocaine (5.6%), insulin (5.0%), marijuana (4.0%), heroin (1.1%), amphetamine (0.7%), cannabis (0.4%) and hygroton (0.4%). Findings also revealed that some of the sports persons also abuse OTC [e.g acetaminophen and NSAIDs] analgesic medicines (1.1%) and non-orthodox-herbal concoctions (1.8%) for performance enhancement. It was therefore concluded that the knowledge, attitude and practice of sports person on drug abuse is unfortunate. Considerably, more research is needed to develop effective prevention strategy that combines education, health and sports based interventions.**

**Key Words:** Drug abuse-Sports-Nigeria

## INTRODUCTION

Drug use and abuse is a global phenomenon that follows sporting events worldwide. Most sports men and women use drugs to enhance performance or personal appearance, or to reduce pains as well as for recreational purpose. Many of these drugs pose health risk.

Drugs or substance abuse however is not always the outcome related to the use of drugs or medication by sports people. Drugs may also be very useful tools in sports medicine. Some medications offset intense pain and also enhance the process of healing. So, drugs may not be the problem as long as they are being used in a legal prescribed manner, under the supervision of trained medical professionals. Substance abuse, inappropriate medication usage and the use of banned substances in the world of competitive sports are the problem.

Some sports events and organizations have banned the use of certain drugs. The term doping used in sports refer to the use of illicit or prohibited substances by sports person to unfairly gain advantage over fellow sport person in competition. Such use and abuse of drugs pose a significant risk to the health, safety and well-being of sports people.

Despite the range of health risks and ethical implications, many sports men and women at both professional and amateur level continue to use these Dangerous and prohibited substances, and this has

become a subject of public health concern.

Studies have pointed out that person's use of drugs in sport could be attributed to a complex interaction of personal and environmental factor. Possible contributing environmental factors include attitudes of peer pressure and parents, accessibility to drugs, and cultural norms and value. In addition, according to the theory of planned behavior, a person's behavior is mainly determined by his/her behavioural intent which, in turn, is influenced by attitude towards the behavior (Orbel & Blair, 2001).

The focus of this study is the abuse of drugs among sports people. This has been a problem in sporting events. The author was trained by the National Drug Law Enforcement Agency (NDLEA) on Drug Demand Reduction, and has implemented many intervention programs on drug abuse prevention for young people which has motivated his interest in this study.

Most of the studies on drug abuse in sports had been conducted in Europe, America and Asia. Knowing the perception of the Nigerian sports people about drug abuse would enable government and stakeholders to plan a better primary approach to preventing substance abuse among this group of people. This study therefore investigates the awareness, knowledge, attitude and practice of Nigerian sports men and women towards drug abuse.

## STUDY OBJECTIVES

To assess the level of knowledge of sports men and women on health implications of drug abuse in sports.
To determine the perception and behavioral attitude of sports people towards drugs for performance enhancement.
To identify the substance and drugs mostly abused by sports people within the environment.

## METHODOLOGY

### Background of the Study Area

This research study was carried out at the National Stadium, Surulere, Lagos, among sports men and women attending sporting events and training practice. The Lagos National Stadium is a multi-purpose stadium in Surulere, Lagos State established under the National Sports Commission, Ministry of Sports to promote sports and culture of excellence in Nigeria. It was originally built in 1960 and was rebuilt in 1972 by Yakubu Gowon, former Head of State. The stadium has hosted several national sports festivals and international competitions including the 2000 African Cup of Nations final and World Cup qualifying matches. It also served as the main stadium for the 1973 All-Africa Games and for many years has produced talents for Nigeria in the sporting world. The stadium has a capacity of 60,000 and a training institute - National Institute for Sports (NIS), and accommodates various sporting activities at both professional and amateur level.

### Type of Study Design

The study adopted the descriptive cross sectional survey design, as the research was only interested in determining the independent and dependent variable without manipulating any of them.

### Sample Size Estimation

A sample size of 345 participants was used. This was derived using the prevalence of drug abuse among sports athletes in a similar study conducted in 2008 by Ogunyemi and Musa at the Sports Council in Ogun State of Nigeria. The study shows a prevalence of 0.34 on proneness to drug abuse between athletes with high and low achievement striving behavior.

### Sampling Techniques

The author employed the use of systematic random sampling where participants from different types of sports were recruited in the project during their sporting activities at the stadium. These participants were professionals in the field of sport. According to the Sport administrators and coaches consulted at the stadium to know the population estimate of people engaged in sports programs at the stadium, more than 10,000 population size were roughly estimated to be engaged in different sports programs at National Stadium of which an estimate of 6,000 can be found taking part in their training practice in a day. The 6,000 per day estimate was as a result of number of scheduled days in a week for each sport field to have their trainings as some of them have 4 days training practice in a week, some have 3 days while others have 2 days to practice in a week. The questionnaire was systematically randomly administered to 362 participants derived from sample size estimation of this project in a period of one week.

At the end of the questionnaire administration exercise, the questionnaires were sorted out as those not properly filled were removed. 17 copies of the questionnaires with errors were removed from the 365 sample. 345 sample questionnaires correctly filled were used for data analysis for this project.

### Data Collection Tools and Techniques

The subjects were interviewed with a structured self-reporting anonymous questionnaire designed by the author for collection of information. The questionnaire was developed by the author from literature review and consultation with experts that have worked in the area of doping and drug use. World Health Organization (WHO) questionnaire template also guided the author in the designing of the questionnaire.

The questionnaire is in four sections; section A for sports persons' demography, section B for their knowledge on health implications of drug abuse in sports, section C for their perception and behavioral attitude towards drugs for performance enhancement, and section D for drug mostly abused by the sports people within the environment. The entire questionnaire comprised 23 items. A pilot study was conducted at the Teslim Balogun Stadium, Surulere, among 20 amateur sports persons to pre-test the efficacy of the instrument.

### Data Analysis

Frequency Measures and Chi-square were applied for analysis. P-value less than 0.05 were regarded as significant point. The data was analysed using EPI-info 6.04 statistical package.

The data presented in this study is in accordance with the stated method, sample size, data collection instrument and method of data analysis.
The following scale was used for assessment of subjects who responded "yes" to the knowledge questions on their knowledge on health risk and harmfulness of the drugs used for performance

**Table1:** Sports distribution of the respondents

| | Sports | Frequency (n) | Percent (%) |
|---|---|---|---|
| 1 | Athletics | 49 | 14.2 |
| 2 | Combat Sports | 35 | 10.1 |
| 3 | Cycling | 4 | 1.2 |
| 4 | Gymnastics | 7 | 2.0 |
| 5 | Power Sports | 36 | 10.4 |
| 6 | Racket Sports | 46 | 13.3 |
| 7 | Team Sports | 168 | 48.8 |
| | Total | 345 | 100 |

The above table describes the distribution of sports category of the respondents. Majority of the subjects (48.8%) from the sampling were team sports persons. These are mainly footballers, and basketball, and are the major game played in the study area followed by athletics sports (14.2%).

Demographical Characteristics of the Respondents

| Sex | Frequency | % |
|---|---|---|
| Male | 208 | 60.3 |
| Female | 137 | 39.7 |
| Total | 345 | 100.0 |

**Table 2:** Sex distribution of the respondents

From the analysis, the above table shows that more of the respondents were male representing 60.3%. In other words, most of the sports people in the study were males while 39.7% respondents were female sports persons.

enhancement;
n below 100 – poor
n within 100 – 250 – fair
n above 250 – good
*n, frequency or number of respondents*

**Ethical Consideration**

For ethical purpose, a letter of introduction of the author on the project was obtained from the Head of Department of Community Health which was presented to the sport authority/administration at the National Stadium, Surulere, to request for approval and consent of the sports people to participate and respond to the questionnaire. On the presentation of this letter, an approval was given to administer the questionnaires and also have free access to their National Institute for Sport (NIS) library for information on the project.

## RESULTS AND DISCUSSION OF FINDINGS

The result of this study showed the considerable need for providing continuous and sustainable intervention with respect to the abuse of drugs in sports and the health risk.

The present study conducted gathered the views that cut across different category of sports. Most of the subjects (48.8%) from the sampling were from the team sports of which most were footballers (Table 1). Team sports such as football has been the most popular sports game played by Nigerians and has successfully competed in this sport at the international level which has earned them with gold medals and trophies.

According to the research of Robert et at (1999), there has never been a significant difference in drug abuse or doping between male and female sports persons and therefore, both genders were examined in this study. The male respondents represent 60.3% while 39.7% were female sports person (Table 2).

Previous researches has shown where disabled sports persons have failed the doping test as proclaim in the research outcome of Ungerleider (2001). and therefore disabled sports persons were included in the study (Table 5).

In the present study, the respondents demonstrated fair knowledge of the health implications of drug use for performance enhancement and yet need further

**Table 3:** Age distribution of the respondents

| Age | frequency | % |
|---|---|---|
| ≤ 20 | 57 | 16.5 |
| 21 – 30 | 150 | 43.4 |
| 31 – 40 | 94 | 27.3 |
| 41 – 50 | 20 | 5.9 |
| 51 – 60 | 8 | 2.3 |
| Non-response | 16 | 4.6 |
| Total | 345 | 100.0 |

*Std Dev. = 0.911*

The above table shows that of the respondents (43.0%) are young people within the age range of 21 – 30 years, followed by those (27.0%) who have their age range between 31 – 40 years.

**Table 4:** Level of Education of the respondents

| Educational level | Frequency | % |
|---|---|---|
| primary | 9 | 2.6 |
| Secondary | 150 | 43.5 |
| Tertiary | 83 | 24.1 |
| No education | 66 | 19.1 |
| Non-response | 37 | 10.7 |
| Total | 345 | 100.0 |

Analysis on table 4 shows that high percentage of respondents (43.5%) are those who have their educational status at secondary school level. 24.1% of the respondents attained tertiary educational level. Few (2.6%) have only primary school education, while 19.1% of the respondents do not have the basic primary education.

**Table 5:** Physical Status of the respondents

| Physical Status | Frequency | % |
|---|---|---|
| Disabled | 21 | 6.0 |
| Non-disabled | 324 | 94.0 |
| Total | 345 | 100.0 |

The above analysis from table 5 shows physical status of the respondents where 94.0% of the sports persons were those without any physical disability and 6.0% represent those who are physically challenged (paralysis of the leg) and are regarded as special sports people. The disabled respondents are involved in table tennis called para-table tennis.

improvement. It may be surprising that most respondents are quite knowledgeable about the health risk of the use of drugs for performance enhancement but found to have used such drugs to improve performance (Table 6). This is because in the issue of drug abuse, though one may have the awareness but can be influenced by the environment. This result is similar with findings of Lena (2005) and Mottram (1999) and also correlate with the findings of Sheeham (1999) that drug abuse is a problem in sports. This implies that any educational program designed for sports persons could be more effective if it is mandatory. As the individuals with the least knowledge is likely to perceive that they have enough knowledge about the issue.

The findings on the sports people's perception and attitude showed that most of the sports people see drug use for performance as not good but perceive most achievement records in sports to be related to drug use

**Table 6:** Knowledge and sports persons' opinion on health implications of drug abuse

| Knowledge | Yes | | No | | Total No. of Respondents (n) |
|---|---|---|---|---|---|
| | n | % | n | % | |
| Drugs can enable a sport person to gain strength | 21 | 23.9 | 311 | 71.6 | 332 |
| Drug use can lead to addiction | 272 | 79.8 | 69 | 20.2 | 341 |
| Nutritional supplements or energy drink can contain illegal substances | 218 | 63.9 | 123 | 36.1 | 341 |
| Alcohol usage appeared to contribute to injury problem in sports | 233 | 73.7 | 83 | 26.3 | 316 |
| Taking drugs to boost performance can pose health risk | 225 | 71.9 | 88 | 28.1 | 313 |

From the above table of analysis and presentation, using the stated assessment scale of knowledge *(see page 5),* the subjects appeared to possess a fair level of knowledge about the health implications of drugs abuse in sports.

**Table 7:** Drugs considered harmful to the body

| | Yes (n) | No (n) | Don't Know (n) | Non-Response | Total No. of Respondents (n) |
|---|---|---|---|---|---|
| Alcohol | 222 | 63 | 55 | 5 | 340 |
| Coffee/Caffeine | 119 | 167 | 50 | 9 | 336 |
| Marijuana | 219 | 58 | 59 | 9 | 336 |
| Steroid | 174 | 63 | 99 | 9 | 336 |
| Codeine | 161 | 57 | 117 | 10 | 335 |
| Heroin | 153 | 64 | 120 | 8 | 337 |
| Percodan | 128 | 57 | 152 | 8 | 337 |
| Oratol | 114 | 60 | 162 | 9 | 336 |
| Hygroton | 119 | 55 | 162 | 9 | 336 |
| Insulin | 117 | 99 | 120 | 9 | 336 |

Table 7 shows that the study participants were quite knowledgeable about the harmfulness of the drugs use for performance enhancement in sports. However, when probed to test the depth of their knowledge, few could specifically state the reasons why sports people should avoid drug usage in sporting events.

(Table 8). This hypothesis is also in consonance with previous research conducted by Ogunyemi and Musa (2008) which obviously show that the individual perception plays a key role in initiating behaviour. Thus it is expected that the knowledge of the consequences of drug abuse will make a difference in the action and behaviour of the sports person but the implication of this is that their perception and behavioral attitude can be influenced by peer, economic and competitive-driven pressure. One may also have the knowledge but seem helpless due to addiction to these drugs and therefore behavioural change communication and counseling is also needed to change attitude.

The present study also revealed that there is significant difference in abuse of drugs and the educational status of the sports persons ($p<0.05$) [Table 9]. This finding do not corresponds to Ogunyemi and Musa (2008) study which established no significant difference in the proneness to drug abuse between secondary and tertiary education level athletes. This implies that educational level can be one of the factors that could be used to assess behavioural attitude. Though other factors such as environment, cultural and socio-economic background contributes to one's attitude.

**Table 8:** Perception and behavioural attitude of sports people towards drugs for performance

| Attitude | Yes | | No | | Total No. of Respondents (n) |
|---|---|---|---|---|---|
| | n | % | n | % | |
| Feel that someone should use drugs to boost performance in sports | 151 | 44.4 | 189 | 55.6 | 340 |
| Will take a positive action against someone who is using banned substance | 233 | 68.3 | 108 | 31.7 | 341 |
| Perceive most achievement records in sports to be related to drug use | 188 | 56.0 | 148 | 44.0 | 336 |
| Agree with sports authority that drugs should not be taken to boost performance | 274 | 79.4 | 71 | 20.6 | 345 |

Table 8 shows significant responses on the sports persons' perception and behavioural attitude towards drugs for performance enhancement. Respondents (44.4%) feel that someone should use drugs to boost performance in sports while 55.6% of the respondents do not agree with such attitude. Against 68.3% of respondents who believe they should take a positive action against someone who is using banned substances in sports, 31.7% feel they should not take any positive action against someone using banned substances. Most respondents (56.0%) perceive most achievement records in sports to be related to drug use. Majority of the respondents (79.4%) agreed with sports authority that drugs should not be taken to boost performance. The perception and behavioural attitude of most respondents is seen to be supportive to the anti-doping movement.

**Table 9:** Educational level and attitude towards the use of drugs for performance enhancement

| Educational Level | Felt that someone should use drugs to boost performance | | | | | |
|---|---|---|---|---|---|---|
| | Yes | | No | | Total | |
| | n | % | N | % | n | % |
| Primary | 2 | 28.6 | 5 | 71.4 | 7 | 2.3 |
| Secondary | 83 | 56.8 | 63 | 43.2 | 146 | 48.7 |
| Tertiary | 34 | 42.0 | 47 | 58.0 | 81 | 27.0 |
| None | 49 | 74.2 | 17 | 25.8 | 66 | 22.0 |
| Total | 168 | 56.0 | 132 | 44.0 | 300 | 100.0 |

*$X^2$ = 17.56, P=0.00054203, Degree of Freedom=3*

Table 9 shows p-value of 0.00054203 which is less than 0.05. This means that difference in the attitude towards doping between respondents level of education is significant.

According to this study, the result indicate that the main drugs used by sports persons were alcohol (27.6%), cocaine (25.9%) and marijuana (13.5%), while other drugs such as steroid, ephedrine, codeine, heroin, insulin and cannabis were also abused among these sports people. Amphetamine (0.4%) and hygroton (0.4%) were among the least drugs abused by the sports persons in the local environment (Table 10). According to the study also, the respondents admitted that they have taken the above drugs in their sporting life time with high responses

**Practice**

**Table 10:** Drugs or substance mostly abused by sports people

| Drug of abuse | N | % |
|---|---|---|
| Alcohol | 94 | 27.6 |
| Cocaine | 88 | 25.9 |
| Marijuana | 46 | 13.5 |
| Steroid | 21 | 6.2 |
| Ephedrine | 17 | 5.0 |
| Codeine | 13 | 3.8 |
| Heroin | 12 | 3.5 |
| Insulin | 11 | 3.2 |
| Cannabis | 10 | 2.9 |
| Amphetamine | 4 | 1.2 |
| Hygroton | 3 | 0.9 |
| **Orthodox drugs** | | |
| OTC analgesic medicine | 7 | 1.1 |
| **Non-orthodox drugs** | | |
| Local/herbal concoction | 6 | 1.8 |
| Total | 340 | 100 |

From the participants' response, table 10 showed that alcohol (27.6%) was the most commonly abused drug for sports performance, followed by cocaine (25.9%) and marijuana (13.5%). Other drugs abused were steroid (6.2%); ephedrine (5.0%); codeine (3.8%); heroin (3.5%); insulin (3.2%) cannabis (2.9%); amphetamine (1.2%); and hygroton (0.9%). The study also revealed that OTC [e.g acetaminophen and NSAIDs] analgesic medicines (1.1%) and Local non-orthodox herbal concoctions (1.8%) were also abused by sports people for performance enhancement.

**Table 11:** Drugs admitted to have been used by the respondents for performance enhancement

| Drug of abuse | n | % |
|---|---|---|
| Alcohol | 154 | 57.2 |
| Ephedrine | 32 | 11.8 |
| Codeine | 22 | 8.2 |
| Steroid | 15 | 5.6 |
| Cocaine | 15 | 5.6 |
| Insulin | 13 | 5.0 |
| Marijuana | 11 | 4.0 |
| Heroin | 3 | 1.1 |
| Amphetamine | 2 | 0.7 |
| Cannabis | 1 | 0.4 |
| Hygroton | 1 | 0.4 |
| Total | 269 | 100 |

The above result shown in table 10 revealed the prohibited drugs that have been used by the respondents on their own. According to the study, most respondents; 57.26%, 11.89% and 8.2% admitted that they have used alcohol, ephedrine and codeine respectively for performance enhancement. Other prohibited drugs that have been used by the respondents were steroid (5.6%), cocaine (5.6%), insulin (5.0%), marijuana (4.0%), heroin (1.1%), amphetamine (0.7%), cannabis (0.4%) and hygroton (0.4).

in alcohol (57.2%), ephedrine (11.8%) and codeine (8.2%) abuse (Table 11). Most research such as Laure (2001) and Dah (2002) also found the use of the above prohibited drugs more common among athletes. However, it was interesting to find out from the study that some of the sports persons also abuse OTC [e.g acetaminophen and NSAIDs] analgesic medicines (1.1%) and non-orthodox - herbal concoctions (1.8%) for performance enhancement. This means that they are discovering and exploring other substances to improve their performance.

As sports are associated with age, age is also

associated with drug abuse as research findings such as Howard (2003) and Oshikoya (2006) has showed that the rate of drug abuse among young people is high. Most respondents (43.0%) in the present study are young people, and young people always like to experiment on drugs even in sports due to the increasing professionalism and commercialization of sports. Therefore, it may be preferably to concentrate efforts on education and prevention.

## CONCLUSION

It was concluded from this study that the knowledge, attitude and practice of the sports men and women towards the use of drugs for performance enhancement is very unfortunate. The trend of doping among the sports men and women has not significantly changed from the way it was reported years ago in previous researches. The subjects seem to have fair knowledge of the health risk of the use of drugs for performance enhancement. This was reflected in their practice. Most of them (56.0%) perceived achievement records in sports to be related to drug use may be a factor that has predisposed them to use drugs to gain competitive edge and therefore wrong attitude and beliefs are one of the reasons for drug abuse. The use of alcohol for performance enhancement was (27.6%) in 340 subjects which was significantly high in the study followed by cocaine (25.9%) and Marijuana (13.5%). The subjects (1.1%) also indulge in the abuse of OTC analgesic medicine and some of them (1.8%) have also used non-orthodox-herbal concoctions to improve performance. Since the potential side effects of doping drugs are not satisfactory familiar to most users, the education of sports persons on the matter must be a top priority and particular attention should be paid to the younger population, who may suffer the most from the health problems caused by doping use. In general, results of this research show that drug abuse or doping remains a problem in sports. The researcher believes that extraordinary effects of these drugs, increasing distribution and lack of knowledge of sports team are among reasons to the use of these drugs. Considerably more research is needed to develop effective prevention strategy that combines health, education and sports based interventions.

## RECOMMENDATION

On the basis of this analysis, the author recommends the following interventions which should be applied to prevent the abuse of drugs for performance enhancement and promote good quality health of sports persons;

Anti-doping education and training programme should be continuous and mandatory for the sporting community in general. The training should aim to provide updated and accurate information on; the harm of doping to ethical value of sports, the health consequences of doping, and also focus on developing core life skills (e.g communication, decision-making, refusal skills). Education and training programmes should also be targeted at adolescents and young people when their attitude and values are being formed.

Educational prevention programmes should be delivered by well trained individuals who will demonstrably deliver the program with high fidelity.

Education and information should not only be provided to sports persons but all of the society (parents, educators, officials, the general public, etc). To this end, it is necessary to inform sports persons, officials and the public about the nature of the problem, the right and obligations of actors concerned. This could be done through mentoring programmes, educational workshops, radio, television, internet and print media.

Research such as this project could be an educational tool; e.g when researchers engage sports persons in completing surveys or interviews, they are in fact raising awareness and, in some cases, such as focus groups will encourage sports persons to think about doping and anti-doping and thereby connect theory with practice.

The federal government should facilitate and encourage relevant competent professional associations and institutions to develop and implement appropriate codes of conducts, good practice and ethics related to anti-doping in sport that is consistent.

The federal government through the national sports commission and other sports authorities should set up effective multidisciplinary network to curb the practice of doping in sports.

The government and private sectors should not only focus on promoting and funding sporting competitions but should also promote and fund anti-doping research.

In conclusion, the author suggests that this proposal be included in terms of reference of any future administration. By implementing such measures, Nigeria and other nations would be able to deal with doping problem.

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