THE ROLE OF ERGOGENIC DRUGS IN ENHANCING SPORT PERFORMANCE AMONG UNDERGRADUATES OF TERTIARY INSTITUTION IN OGUN STATE

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Abstract

The purpose of this study is to examine the roles of Ergogenic Drugs in enhancing performance among undergraduates of institutions in Ogun state. Respondents used in this study consist of students from Tertiary Institutions in Ogun State. The research instrument used for the study was a questionnaire that contained twenty items seeking information on the roles of Ergogenic Drugs in enhancing performance among undergraduates of tertiary institutions in Ogun state. Questionnaire was done by hand in order to ensure 100% return rate of the questionnaire. Based on findings, it was revealed that sportsmen and women in tertiary institutions have the knowledge of the ergogenic factor that is leading to sport enhancement. A number of athletes also indulge in the use of performance enhancing to avoid defeat in sport. It was therefore recommended that the Nigerian Government should intensify its campaign and public enlightenment programmes to educate the athletes on the health consequences of indiscriminate use of drugs to enhance performance and drug education should be an integral part of the curriculum in tertiary institutions in Nigeria.

Keywords: *Doping, Ergogenic, Ergogenic Aid, Drugs, WADA, Undergraduate*

Introduction

Background of the Study

Throughout history dating from the period of ancient Greece, sports played important roles in many societies. However, their importance accelerated rapidly in the last thirty years(Canroll, 2001). He added further that nowadays, victory in sports is construed to indicate political superiority and winning athletes occupy positions of high esteem within their societies and in some countries the financial rewards are quite handsome. Kingala, (2000) pointed out that modern day sporting activities become a big multi-million-dollar industry, thereby escalating the price of

victory. According to him the rewards for winning are so high nowadays and the penalties for losing are so severe that most sport administrators, coaches' trainers and athletes start succumbing to the temptation of wining at all costs. It has been discovered that most of the athletes do not care about the methods they now employ for winning games and sports (Gillis, 2006). It is however not surprising to see many athletes going the extent of finding ways to enhance their performance in sports. Thus, the use of doping or ergogenic materials is becoming rapid in sport and various attempt to achieve superiority performance over their opponents now become a worldwide problem (Calfee & Fadale, 2006). Doping or ergogenic materials use is viewed as the practice of administering or the use of substances in any form alien to the body in abnormal method with the aim of attaining increase of performance in competition (International Olympic Committee Medical Commission 2006).

According to Elizabeth, Susan & Suman (2003) the use of ergogenic aid to improve athlete's performance is not a new phenomenon. Evidence of the use of various product to give athletes an advantages over their opponent can be traced back to Ancient Greeks where Egyptians and Romans tried to increase the speed of their chariot by giving their horses a mixture of honey and water the Greek ate hallucinogen mushroom and sesame seeds to increase their endurance and other stimulant mixed with alcohol to overcome fatigue and injury.

Noakes(2004) in his study mentioned that the use of drugs under this category is referred to as performance enhancing drugs. These include any compounds taken to increase strength, power, speed or endurance or to change or alter body weight or composition for the sake of boosting athletics performance.The wide spread of doping or ergogenic aid in sports begin particularly amongst the followers of pop music with a pharmacological revolution which began in the sixties (Noakes, 2004).

Surprisingly, the World Bank Report (2007) observed that athletes have discovered some ingredients in these chemical agents that could be used to enhance performance beyond anything that they could achieve by hard work and rigorous training programs. According to Timothy, (2001) these drug addict athletes felt that they could simply select most of these illegal drugs to meet their needs for improving their performances. Consequently, therefore therewere mass production and use of doping substances with adverse effects on sports performance when the national and international sports became excessively competitive and commercialized(Timothy, 2001).

According to Moronkola (2003), hepointed out that the body of evidence of serious health risks associated with performance enhancing drugs has continued to increase. It is on records that many sportsmen and women resort to ergogenic aids on the suggestion of their coaches, doctors, friends and managers and some commercial organization that wants to market their products. The practice of

ingesting, injecting, inhaling, or applying substance to the skin to enhance workout has been with man over centuries (Vioet, 2001).

Presently, Sheppard, Raichada, & Kouri et al (2000) pointed out that performance enhancing drugs is becoming more pronounced among the athletes virtually in all Olympics sports. The danger, these anabolic steroids poses to human health is very devastating hence the ban from public use in sport. Muthigani (1995) and Hawkins, & Catalano, (2002) also pointed out that some top athletes were discovered to have engaged in doping practices to enhance their performances but for many years, it has worked contrary to their expectation.For instance, among thecyclists, track and field event athletes, swimmers and weight lifters. Most of these mentioned athletes' groups have been implicated in the use of banned substances such as cocaine, amphetamines and heroine, steroids, stanozolol,nandrolone, dianabol and other substances with similar chemical effects (Woolley, 2000).

Smith (2006) also mentioned that other prohibited substances under restriction include alcohol, marijuana, local analgesics and beta-blocker. For instance, these stimulants are used to increase alertness and prevent tiredness and fatigue. He added that thesedrugs are often used by athletes for endurance and strength. These ergogenic drugs are used during competitions and rigorous training to enhance performance in strenuous events and reducing sensitivity to pain(Moronkola,

2003). Bell, & Jacobs, (2009)also stated thatvarious studies have shown that many of the athletes now use stimulants during training. The two scholars also added that experience have shown that youngest Nigerians, especially sportsmen and women who abuse psychoactive drugs at the earliest stage of their life continue till their adolescent stage have faced biggest risk that affect not only their own health but the health of others around them. A comparison study of Laure (2009) observed that the rate at which these illegal drugs are abused and the level of cardiovascular effect on individual user have caused serious liver problems and serious health challenges such as heart blood pumping efficiency and reduction in the flow of blood through the kidney which normally filter excess salt and water out of the blood. The heavy use of ergogenic drugs have also led to sudden death among the athletes (Timothy 2006).He however stated that these mood altering drugs can as well affect a person's body function behaviour, social life and family. Woolley (2000) generally held that the motive for substance use in sport events is emphasized in the following etiological reasons. (i) Intent to cope with sport stress, and to temporarily enhance self- perception and self- esteem. (ii) Bid to get rid of personal problems by drowning their sorrow. All these according to the scholar represent a psychologically immaturity and avoidance of coping behaviour.

The World Anti-Doping Agency (2005) reported that ergogenic drugs in sports is regarded as a major threat to the existence, principles and practice of

modern competitive sports. According to them,the issue has generated great concern among stakeholder and general public members as the attitude was termed to have pose great threat to the development of sports ideals in Africa and the world.

It should also be noted that some authors have pointed out that athletes who dope create an uneven playing field for their peers who compete free of performance–enhancing compounds.Bells, (2006) therefore assert that the health risks inherent in doping are considerableenormous. He also stressed that ergogenic drugs have become a topical issue in international sports.It is now no longer possible to mention international sports competitions without mentioning drugs. Mwenesi, (2006) having perceived the significant effect of ergogenic drug on sport, he stated that the prevalence of doping in sports can be well appreciated by the number of athletes caught using prohibited substances.

Calfee, & Fadale, (2006) however observed that the prevalence of ergogenic drugs among the University student-athletes is not surprising because about 40 percent of the athletes representing Nigeria at the International competitions are not subjected to any doping test before they participated in competitions. So many athletesthat have participated in Nigeria's sport were drawn from the Universities, Polytechnics and Colleges of Education (Darden, 2003). Studies have shown that there is paucity of theuse of ergogenic aid in sports in Nigeria (Dore, 1995).To a great extent, the use of ergogenic materials has been restricted to professional sports outside the country and has not been applied on University or secondary school sport.

Many recent studies have shown rampant cases of the use of ergogenic materials in sport both at the international and national level. A substantial field record of studies over the past years has recorded the use of ergogenic aid among the children, adolescents and adults in sport (DeSantis, Webb, & Noar, 2008). The findings have also shown that the use of ergogenic materials featured not only in sport but in all other physical activities among various professionals (Board of Certification, 2013). While ergogenic aids appeared to have been well researched, studies have shown that little or no attention has been paid to performance among the Nigeria athletes in Nigerian sports especially among the University, Polytechnics and College of Education students- athletes who might have been deep-neck into these practices (Gleaves, 2015).

Several studies have shown that factors that makes the young athletes to be involved in the use of drugs to succeed in sport is the findings from many sport idols today that ergogenic aid played important role in record breaking performance (Gallucci, Usdan, Martin, & Bolland, 2014). The firm respect given by the young athletes to the idols-athletes that ergogenic drugs are accepted in sport, provide incentive for the young athletes to take up the use of these drugs. As young athletes begin to model themselves after the professional sport icons, the use of

ergogenic materials begins to unfold in sport (Bells, 2006). Secondly, therecognition the present societyhave given to sport in Nigeria today has placed so much affluence on collegiate and tertiary sports to feature on mass media and the pressure to succeed at all cost has placed most of these young athletes on the verge ofboosting their image (Tom, 2004). Added to this is the economic desire to gain prominence in sport. The resultant effect of money and social status that accompanied athlete's success has garnered several of these athletes to seek for how to get contracts which invariably has led to the use of ergogenic materials in other to secure contracts (Adelekan, 2019). He added that another factor ascribed to the use of ergogenic materials is the wide opportunity of seeking for sponsorship in tertiary sport. This range of factor has been itemized as various reasons for high use of enhancing performances drugs. Another subtle factor presumed to be responsible for the use of ergogenic drugs is distinct competitive advantage which most of the athletes enjoyed for keeping up with their fellow students who are already using these substances (Adelekan, 2019). It is therefore clear from the above mentioned facts that the pressure to measure up with other peers group is very significant in the use of ergogenic aid.

It seems reasonable to suggest therefore that athletes from tertiary institutions in Nigeria may not be totally exempted from the use of ergogenic drugs because of their interactions with other athletes in international competitions(Tom,2004). In consonance with the stringent measure of discipline being applied on victims of ergogenic materials in sport,the researcher has been so moved to carry out an investigation on the role of ergogenic drug in enhancing sport performance among undergraduate of tertiary institution in Ogun state.

Statement of Problem

Ergogenic drugs have been a point of reference by all athletes whereby the use of drug has heeded positive or negative impact on the users. It is generally believed that irrespective of social-economic or educational status an athlete must have attained, studies have shown that most of them cannot be excluded from drug use. It has also been shown that taking ergogenic drugs has a lot of side effect on the user. It has also been discovered that so many athletes have died as a result of using ergogenic drugs. These unhealthy circumstances that was associated with ergogenic drugs has stirred the interest of the researcher in examining the roles of ergogenic drugs in enhancing sport performance among undergraduates of tertiary institution in Ogun state.

Research Hypotheses

The following research hypotheses are tested in the study

1. Sportsmen and women in tertiary institutions will not significantly be aware of doping substances used in sports.

2. Sportsmen and women in tertiary institutions will not significantly be involved in the use of doping practices.

Methodology

Research Design

The study adopted descriptive survey research design. The research design helpsin identifying problems, make comparison, evaluate and collect information from different sources to build up this study.

Population of the Study

The population of this study comprises of male and female undergraduate of tertiary institutions in Ogun State.

Sample and Sampling Techniques

150 respondents were randomly selected from three (3) public tertiary institutions in Ogun State. Seven sports were purposively selected on the basis of accessibility. These include Athletics, Table Tennis, Handball, Hockey, Soccer, Volleyball and Cricket. The choice was based on the location and involvement in sports.

Instrument for Data Collection

The instrument used for this study is a self-designed questionnaire to gather information from the respondents. The questionnaire was divided into two (2) sections. Section "A" tapped information on demographic data of the respondents, while sections B, viewed the hypotheses raised in the study.

Validity of Research Instrument

The draft copy of the questionnaire was given to two experts in the field of Human Kinetics and Health Education for corrections, amendment, suggestions, and modification before it was finally administered on the respondents.

Reliability of the Instrument

To ascertain the reliability of the instrument, twenty copies were administered on group of students from other institutions that have the same characteristic with target sample. The split-half reliability coefficient statistics was used and a value of 0.72 was obtained to confirm the reliability of the instrument.

Procedure for Data Analysis

The data collected, were coded and analyzed using descriptive statistics of frequency count and simple percentage for demographic data, while inferential

statistics of Chi-square (X2) was applied on the hypotheses at 0.05 level of significance.

Hypotheses Testing

Hypothesis 1: Sportsmen and women in tertiary institutions will not significantly be aware of ergogenic substances used in sports.

Table 1

Respondents	N	Cal val (x^2)	Df	Tab val (x^2)	Level of significance	Decision
YES - 1159						
NO - 841	2000	50.56	3	7.815	0.05	Rejected

Table 1 show that the calculated chi-square value of 50.56 at a degree of freedom of 3 is greater than the critical value of 7.815at 0.05 alpha level of significance. Hence, the null hypothesis which states that sportsmen and women in tertiary institutions will not significantly be aware of ergogenic substance used in sports was rejected.

Hypothesis 2: Sportsmen and women in tertiary institutions will not significantly be involved in the use of ergogenic during practices and training

Table 2

Respondents	N	Cal val (x^2)	Df	Tab val (x^2)	Level of significance	Decision
YES - 1139						
NO - 861	2000	38.64	3	7.815	0.05	Rejected

Table 2 shows that the calculated chi-square value of 38.64 at a degree of freedom of 3 is greater than the critical value of 7.812 at 0.05 alpha level of significance. Hence, the null hypothesis which states that sportsmen and women in tertiary institutions will not significantly be involved in the use of ergogenic materials during practices and training was rejected.

Discussion of Findings

Hypothesis 1: The null hypothesis which states that sportsmen and women in tertiary institutions will not significantly be aware of ergogenic substances used in sports was rejected. This implies that sportsmen and women in tertiary institutions are significantly aware of ergogenic aid used in sports. Thisfinding was in line with Bells, (2006) who reported that the most common drugs used as performance enhancing drugs by athletes are anabolic agents, amphetamines, cocaine, ephedrine, caffeine and diuretics. Though the question of whether certain drugs could have a positive bearing on athletes" competitive ability is still controversial, no one is left in doubt that many outstanding performers tested positive to these set of drugs. By this assertion, it simply means all the athletes are quite aware of the type of ergogenic materials being used in sport. Researches regarding ergogenic have also confirmed the effects which amphetamines have on sport as reported in literature (Bells, 2006). The ingestion of amphetamines have been recorded to improve swimming, running, weight throwing performance, reaction time and balance. It has also been reported that swimmers, baseball players, runners and weight throwers performed better after the administration of amphetamines (Hua, 2008).

Hypothesis 2: Sportsmen and women in tertiary institutions will not significantly be involved in the use of ergogenic materials was rejected. This implies that sportsmen and women in tertiary institutions are significantly involved in the use of ergogenic materials. These findings was in line with International Olympic Committee Medical Commission (2006) who opined that most of the athletes do not care about the methods they now employed for winning games and sports. It is not surprising to note that almost all the athletes go extra mile in their bid tofind ways of enhancing their performance in sports; the principle to win at all cost which most of the athletes and their trainers adopt in sport has given most of them some privilege of adopting ergogenic aids in competitive event (Bell, & Jacobs, 2009). Most of the student-athletes do not care for adopting any method of having success and using upper hand above their opponent to achieve superior performance (Gleaves, 2015). This issue also corroborated the views of Adelekan (2019) and Gleaves, (2015)that some of the factors promoting the use of ergogenic materials in sports include economic gains and social affluence. So many athletes who participate in sport result to the use of ergogenic aid in order to receive enough reinforcement that could put them on advantage of getting more pay as a result of their enhanced performance in competition (Gallucci, Usdan, Martin, & Bolland, 2014).

So many others took after their peers who are into drug use and never suffered disciplinary actions, hence in order to have the same advantage took after their peers and other idols icons in sport purposely to attract fame (Mwenesi, 2006; Imbosa, 2002).

Conclusion

The results of the present study showed that sportsmen and women in tertiary institutions have the knowledge of the ergogenic materials which most of the time leads to sport enhancement. There are quite numbers of athletes who indulge in the use of ergogenic aid for performance enhancing to avoid defeat in sport. It was also discovered that most of the drugs used for performance enhancement sometimes leads to poor performances and serious health challenges ranging between emotional and psychological disorderliness, and distortion of senses (dream like thinking), illusion, hallucination and dilution.

Recommendations

Based on these findings, the following recommendations are hereby suggested:

1. The Government should intensify efforts at increasing campaign and public enlightenment programmes to educate the athletes on health consequences of indiscriminate use of drugs to enhance performance.
2. Drug education should be an integral part of the curriculum in tertiary institutions in Nigeria
3. The National Sports Commission in Nigeria should intensify their efforts by extending doping test applied on professional athletes towards testing athletes on local level in order to prevent further international disgrace.
4. Government should make funds, facilities and personnel available for forensic laboratory drug testing on each occasion that sport competition is to be held in Nigeria
5. Stiffer penalties should be meted out to those who tested positive to any of the prohibited doping drugs than the present 2-years ban.
6. Parents and teachers should monitor the company that their children keep to ensure they do not involve themselves with drugs abusers.
7. Teachers should also set good example to their students. Consumption of alcohol or drug related materials should be avoided in the presence of the students. The teachers should also work to elicit better relationships with the students' populace in and out of school.

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