



Awareness on Use of Steroid Drugs among Football Players

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Authors' contributions

This work was carried out in collaboration among all authors. Author ASKK designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Author DG managed the analyses of the study. Author LKS managed the literature searches. All authors read and approved the final manuscript.

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ABSTRACT

Steroids are man-made chemicals that resemble hormones that are naturally made in the human body. The main role of steroids in sports is to enhance performance and reduce inflammation. The aim of the present study is to assess the awareness of the use of steroid drugs among football players and the ill effects of steroid drug intake. A Cross-sectional study was done on 100 football players and veterans registered with the State Football Association. A pretested structured questionnaire assessing the awareness on the use of steroid drugs was the survey instrument. Both male and female football players and veterans within the age group 18-50 years were selected after obtaining informed consent. The sampling method used was a simple random sampling method. The questionnaire comprised of 10 open-ended questions and were administered through Google forms. 76% of the participants responded that they use steroid drugs at least once and 24% responded that they never used steroid drugs. According to the above survey, we conclude that there is a high rate of usage of steroid drugs among football players.

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1. INTRODUCTION

Steroids are man-made chemicals which are hormones, naturally made in the human body. The main role of steroids is to act as a hormone and reduce the inflammation in our bodies. These steroids are also called corticosteroids, which are different from anabolic steroids used by sportspersons [1]. Glucocorticosteroids are widely used in medicine and have shown unchallenged therapeutic potential in several chronic inflammatory conditions and other diseases. They are also widely used in sports medicine for the treatment of conditions such as asthma and acute injuries. In sports medicine, non-steroidal anti-inflammatory medications (NSAID) are widely used. NSAID has proven anti-inflammatory, analgesic, antipyretic and antithrombotic activity, although its in-vivo activity is largely unexplained in human treatment of musculoskeletal injuries. Sports medicine doctors also use non-steroidal anti-inflammatory medications (NSAIDs) to treat athletes in discomfort [2–7].

There is a lack of proof of sufficient quality to direct the use of NSAID. Their adverse effects are scientifically significant, and their potential detrimental impacts on the long-term recovery cycle are becoming gradually more evident. Aspirin and the anti-inflammatory non-steroidal medications (NSAIDs) have been available commercially for decades, and their potential to relieve discomfort and inflammation is well known. It was first seen nearly 30 years ago that aspirin greatly inhibits platelet activity at the biologically essential amino acid serine 529 by acetylation of platelet cyclo-oxygenase (COX) [8–14]. The FIFA policy against doping is focused on awareness and prevention.

A worldwide network of doctors ensures simple drug monitoring protocols and leaves no space for cheating. FIFA fully acknowledges its duty to protect athletes from harm and to ensure fair conditions for all competitors through stringent drug prevention laws, data collection of positive samples. Anabolic steroids are a natural derivative of testosterone, the male hormones [15–22].

Properly used, anabolic steroids can aid in curing blood diseases, connective tissue disease, some tumors, intractable inflammation, some genital dysfunctions, and other severe illnesses.

Athletes that ingest banned stimulants face a significant risk of suffering long-lasting harm to their social, behavioral, and physical health, but can also adversely affect the player's emotional health – with side effects like paranoia, hysteria, and insanity [22,23].

Athletes who have sustained serious injuries would be tempted to dope in the hopes of speeding up their recovery cycle and ensure that their time on the sidelines is reduced as much as possible. Many may not be aware that the drugs they have opted to take are being banned but confusion does not always deter long prohibitions.

Previously our department has published extensive research on various aspects of prosthetic dentistry [24–34], this vast research experience has inspired us to research about the awareness on the use of steroid drugs among football players. The aim of the present study is to assess the awareness on the use of steroid drugs among football players.

2. MATERIALS AND METHODS

A Cross-sectional study was done on 100 football players and veterans registered with State Football Association. A pretested structured Questionnaire assessing the awareness on the use of steroid drugs was the survey instrument. Both male and female football players and veterans within age group 18-50 years were selected after obtaining informed consent. The sampling method used was a simple random sampling method. Questionnaire comprised of 10 open ended questions and were administered through Google forms. The result output variables were collected and was represented in pie charts. The statistics used to analyze the results was the descriptive statistics and chi-square test using SPSS software. The advantages are it is economic, easy to create, and can have a wide reach. The purpose of the study and the questionnaire was explained before these questions are given to the players. The questionnaire required approximately ten minutes to complete. The responses were collected and analyzed statistically.

3. RESULTS AND DISCUSSION

The term “anabolic steroids” refers to testosterone derivatives that are used either

clinically or by athletes for their anabolic properties. However, scientists have questioned the anabolic effects of testosterone and its derivatives in normal men for decades. Most scientists concluded that anabolic steroids do not increase muscle size or strength in people with normal gonadal function and have discounted positive results as unduly influenced by positive expectations of athletes, inferior experimental design, or poor data analysis. The result of the present study is as follows - According to Fig. 1, 13% belong to the 18-25 years age group, 40% were 25-30 years age group, 27% were 30-35 years age group and 20% were 40 and above years age group. Fig. 2 shows 35.35% were male and 64.65% were female. Fig. 3 shows, 79% were aware of the usage of steroid drugs and 21% responded they were not aware of the usage of steroid drugs. Fig. 4 shows, 76% used steroid drugs at least once and 24% responded that they never used steroid drugs. Fig. 5 shows awareness on the steroid test, 50% responded to blood samples, 24% responded to urine samples and 26% responded to both as the test for the intake of steroid drugs. Fig. 6 shows,

60% responded that steroids improve their strength, 20% responded to pressure and 20% responded to physical or mental illness as the main cause for the intake of steroid drugs. Fig. 7 shows, 13% responded to Anadrol, 40% responded to oxandrin, 27% responded to Dianabol and 20% responded to all of the above.

In the present study, Fig. 3 shows 79% responded they were aware of the usage of steroid drugs and 21% responded they were not aware of the usage of steroid drugs. According to the study by Gobhain et al, 70 % of the players are aware of punishment against doping and 30% of them believe that such behavior is against the spirit of sport [35]. Fig. 5 shows 50% responded to blood samples, 24% responded to urine samples and 26% responded to both as the test for the intake of steroid drugs. In previous studies, the frequency of positive findings was 1.0 to 1.8% on the data obtained from Anti-Doping analyses performed on 100,000 urine samples from 2000 to 2009 [36].

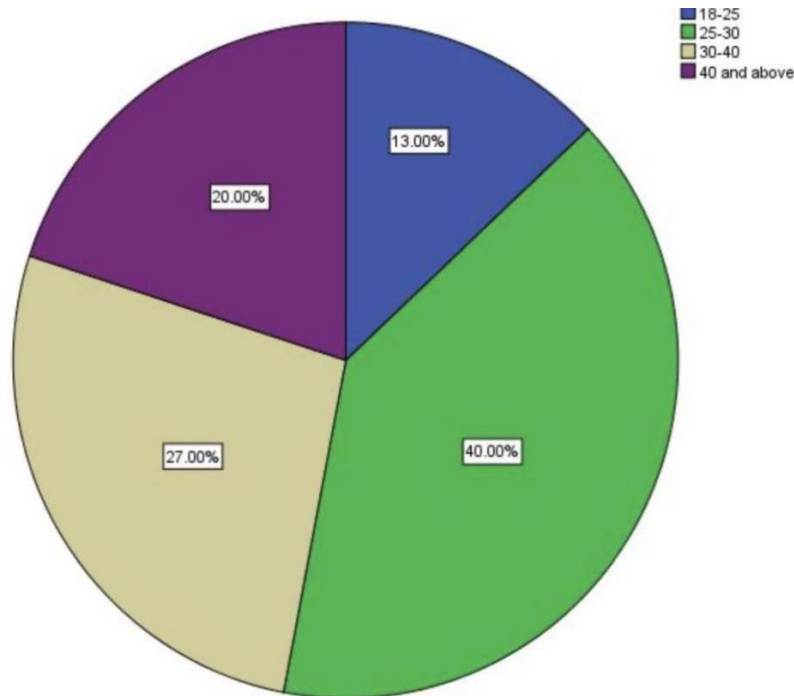


Fig. 1. Pie chart represents the percentage distribution about the age group of participants. 13% belong to 18-25 years age group (Blue colour), 40% were 25-30 years age group (Green), 27% were 30-35 years age group (Yellow) and 20% were 40 and above years age group (Violet). Majority of participants were in age group 25-30 years (40%)

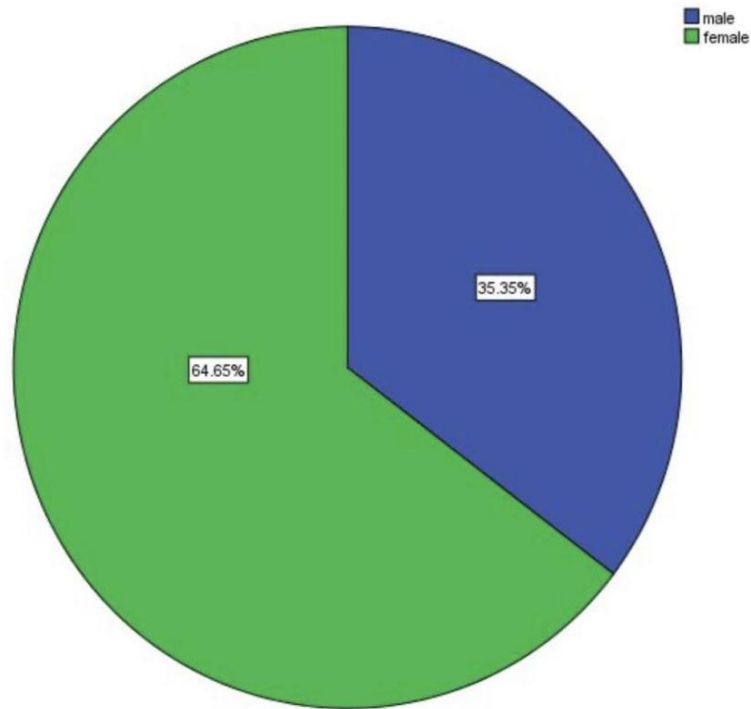


Fig. 2. Pie chart represents the percentage distribution about the gender of participants.35.35% were male (Blue) and 64.65% were female (Green).Majority of participants were female (64.65%)

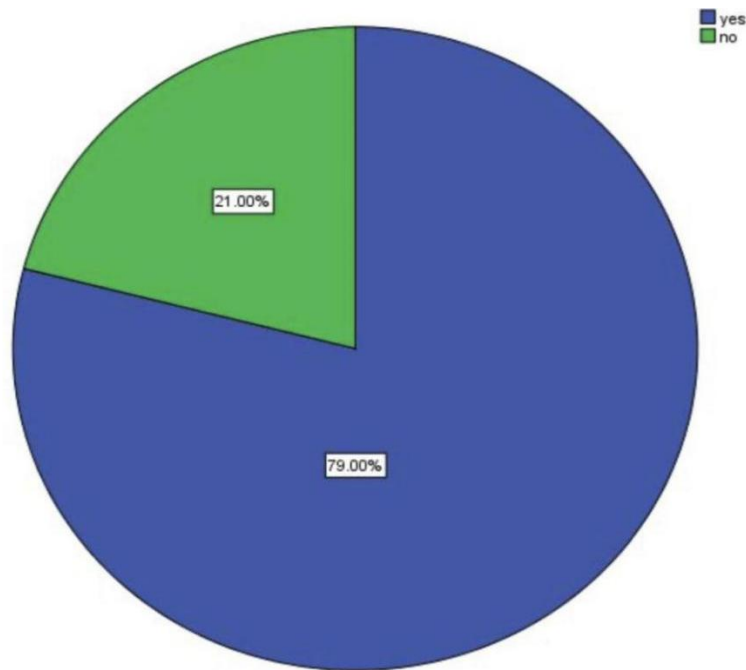


Fig. 3. Pie chart represents the percentage distribution about the awareness of usage of steroid drugs among football players.79% responded yes (Blue) and 21% responded no (Green). Majority of participants responded yes (79%)

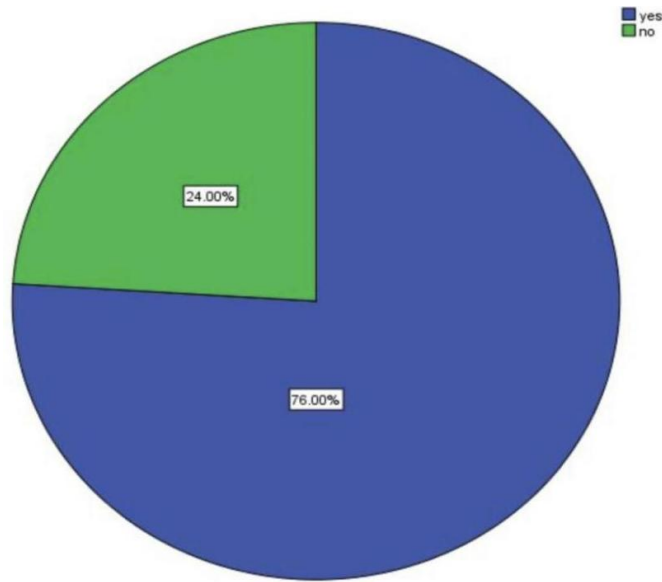


Fig. 4. Pie chart represents the percentage distribution about the usage of steroid drugs among the participants.76% responded yes (Blue) and 24% responded no (Green)Majority of participants responded yes (76%)

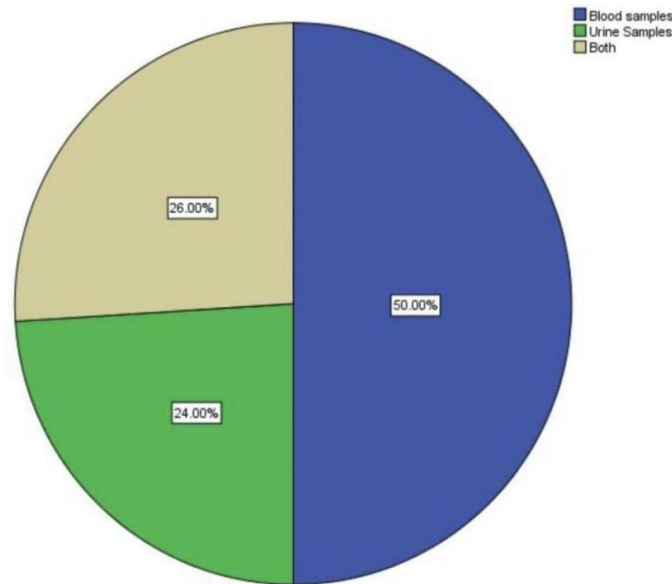


Fig. 5. Pie chart represents the percentage distribution about the awareness of testing the intake of steroid drugs among participants.50% responded blood samples (Blue),24% responded urine samples (Green) and 26% responded both (Yellow).Majority of participants responded blood samples (50%)

In the present study, Fig. 1 shows 13% belong to the 18-25 years age group which is similar to the age group involved, it was estimated that the prevalence of prohibited substance use to be 3 to 5% in adolescents and children who practice sports. In another study, the prevalence of illicit drug use in adults was found to be even more,

with 5-15% of adults using illegal substances. Fig. 4 shows 76% responded that they use steroid drugs at least once and 24% responded that they never used steroid drugs which were similar to a previous study, which involved 1459 athletes, 4% athletes agreed that they had used doping agents at least once in their life [37].

In another study, models of biological parameters and a combination of questionnaires suggest that the current prevalence of intentional doping in elite athletes is 14 to 39 %. Fig. 6 shows 60% responded to improve their strength, 20% responded to pressure and 20% responded to

physical or mental illness as the main cause for the intake of steroid drugs which shows similar responses and, the common reason given by the respondents for using prohibited substances was to increase performance (69.4 %) followed by social recognition [17,38].

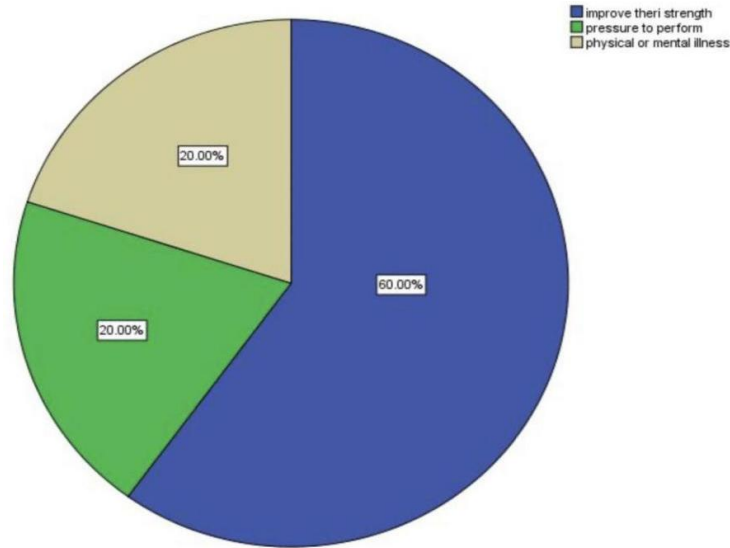


Fig. 6. Pie chart represents the percentage distribution about the awareness of main cause for intake of steroid drugs among participants.60% responded improve their strength (Blue),20% responded pressure to perform (Green) and 20% responded physical or mental illness (Yellow).Majority if participants responded improve their strength (60%)

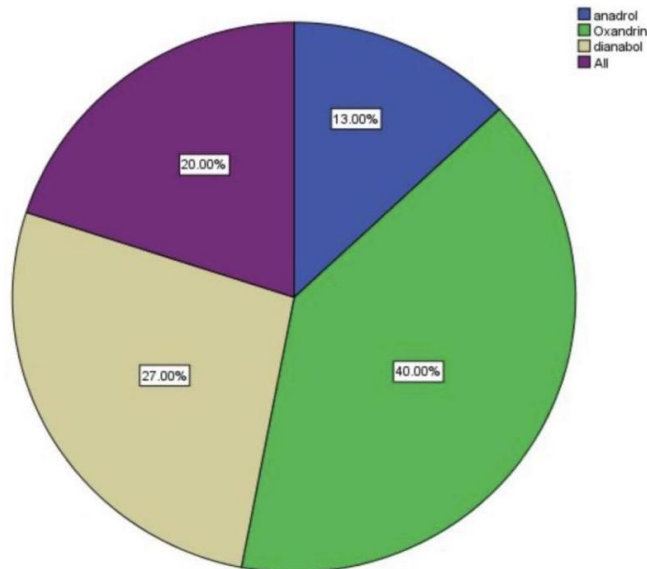


Fig. 7. Pie chart represents the percentage distribution about the awareness of the most commonly used drugs among participants.13% responded anadrol (Blue),40% responded oxandrin (Green),27% responded dianabol (Yellow) and 20% responded all of the above (Violet).Majority of participants responded oxandrin (40%)

The limitations of this study are fewer sample sizes, homogenous population and different region/general population needed. In the future, an extensive study with a large sample size can be used to create awareness on steroid drugs among football players. Overall, the football players had a high intake of steroid drugs.

4. CONCLUSION

According to the above survey, we conclude that there is a natural tendency for the usage of steroid drugs among football players. Awareness must be created among the football players about the ill effects of the steroid drugs intake.

CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

It is not applicable.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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