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The Role Of Global And Natıonal Instıtutıons In The Fıght Agaınst Dopıng In Sport

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Abstract
The purpose of this study is to analyze national and international policies, institutional approaches, and measures taken against doping in sports, and to offer recommendations for the sustainability of an ethical sports culture. The research was designed within a qualitative framework, and the data were obtained by searching the PubMed, YÖKTez, and ScienceDirect databases using the keywords "sports" and "anti-doping." The sources obtained were systematically examined using the document analysis method.
The study examines in detail the historical development of doping, its conceptual framework, and the classification of substances used. Among the motivations for choosing doping are the status and economic gains expected from sporting success, the desire for individual recognition, and, in some cases, pressure from coaches or the environment. It is noted that these practices not only threaten the physiological and psychological health of athletes, but also undermine the ethical foundations of sport and violate the principle of equality. The World Anti-Doping Agency (WADA), which plays a central role in the fight against doping at the international level, was established in 1999 and has standardized policy, monitoring, and disciplinary processes to ensure global compliance. In Turkey, the Turkish Anti-Doping Agency (TDKM), which began operations in 1989, stands out as a strategic actor in the fight against doping through both scientific analysis processes and awareness and education initiatives.
In this regard, it has been emphasized that the fight against doping should not be limited to testing and sanction mechanisms alone, but should also be supported by multifaceted strategies such as education, ethical awareness, psychological support, and institutional transparency. The dissemination of systematic education programs for young athletes, instilling a sense of fair play at an early age, and encouraging scientific research on doping are among the key elements of these strategies. It is essential that all stakeholders act in coordination and with a sense of responsibility to ensure a fair and sustainable competitive environment that is consistent with the nature of sport.

INTRODUCTION

Despite recent efforts to promote fair play and sportsmanship, such as competing without harming opponents, doping, which is considered the use of banned substances, is said to be becoming increasingly widespread (Samar & Ece, 2022). Athletes' desire to enhance their performance can sometimes be so intense that it drives individuals to resort to illegal methods, violating ethical principles. This is primarily because sporting success is not limited to individual satisfaction but also leads to various sociological and material consequences, such as social status and economic gains (Akgün, 1991). Athletes seek to enhance their performance through various methods driven by the desire to gain an edge in competitive environments. Such practices enable individuals to engage in more intense and prolonged training, resulting in noticeable improvements in physical capacities such as speed and strength (Perritano, 2016). Many athletes, guided by the "win at all costs" mentality, choose to use performance-enhancing supplements and/or doping substances, disregarding the potential side effects (Lopez & Casa, 2009). Some athletes use various dietary supplements to prepare their bodies before exercise, reduce the risk of injury during training, and support the recovery process after training (Arensberg et al., 2014). On the other hand, administering foreign substances to the body or applying physiological agents above normal levels before, during, or after competition in order to push performance beyond natural limits is considered doping in terms of sports ethics and rules (Erkiner & Soysüren, 2007). The use of doping compromises both the physical and psychological integrity of athletes, leading to health deterioration and serious risks that can result in death in some cases. Such practices not only negatively affect biological structure, but also cause the erosion of ethical values, leading to the loss of meaning of the idealized image

of the champion and record-breaking athlete (Öngel, 1997). Substances and practices strictly prohibited for athletes are detailed in the list of prohibited substances and methods published annually by the World Anti-Doping Agency (WADA) (Kargılı, 2002). Doping practices have been banned by many international sports authorities, primarily the World Anti-Doping Agency (WADA) and the International Olympic Committee (IOC), and have been prohibited through various regulations in order to protect the ethical integrity of sport (Dündar, 2005). This situation has brought to the forefront the need for effective measures against all doping practices conducted for purposes other than medical treatment. Therefore, the aim of this study is to provide information on the policies, measures, and approaches implemented worldwide and in Turkey regarding the fight against doping in sports.

METHOD

Research Model

This study was conducted using a qualitative research model. According to Yıldırım & Şimşek (2008), qualitative research can be defined as a systematic research process that uses qualitative data collection techniques such as observation, interviews, and document analysis, aiming to reveal individuals' perceptions and experiences in a natural environment in a holistic and realistic manner. Qualitative research encompasses various data collection methods such as in-depth individual interviews, focus group interviews, observation, document analysis, and similar techniques (Creswell, 2013).

Data Collection

During the data collection process, searches were conducted in databases such as PubMed, the Higher Education Council National Thesis Center (YÖKTez), and ScienceDirect using the keywords “Sports” and “Anti-Doping.” In this context, theses, scientific books, and articles were accessed, and the obtained sources were analyzed.

Data Analysis

The analysis of this study was conducted using the document analysis technique. Document analysis is a data collection method that enables the acquisition of information related to facts and events concerning the research topic through the examination of written documents (Yıldırım & Şimşek, 2008). Document review is the systematic analysis of documents containing information for a specific purpose, based on the original concepts and expressions they contain (Miles & Huberman, 2016; Neuendorf, 2017).

FINDINGS

Definition of Doping

Doping derives its name from the word “dope,” which was used by South African natives to refer to an alcoholic beverage, but over time it has acquired a different meaning in sports literature. Doping is defined as the intake of any foreign substance into the body, either during or outside of competition, by any means, with the aim of artificially and illegally enhancing an athlete's performance (Ergen, 2011). In its most general sense, doping is defined as athletes resorting to prohibited substances or methods to enhance their athletic performance (Lippi & Guidi, 1999). According to the Medical Commission of the International Olympic Committee, doping is a practice that involves the use of prohibited drugs and methods (Üstdal, 1998). The European Sports Council defines doping as the administration of physiological substances to the body of an athlete participating in a competition in doses above normal or by unusual methods, or the use of these substances by the athlete, in violation of the rules (Akgün, 1993).

History of Doping

The use of performance-enhancing substances is not limited to the present day; similar practices have been observed throughout history. In 776 BC, Ancient Greek Olympic athletes and Roman gladiators are known to have used herbal mixtures, mushrooms, wine, and certain medicinal herbs to enhance performance and reduce pain (Baron et al., 2007). It is known that athletes consumed mushrooms to increase their speed in sports competitions held in the 3rd century BC, while the Romans gave animals a mixture called “Hydromel,” consisting of water and honey, to increase the performance and endurance of the horses pulling their chariots (Akgün, 1993). The term “doping” derives from the word “dop,” which originated in the indigenous languages of Southeast Africa and was adopted into the Flemish language spoken by Dutch immigrants. This expression refers to an alcoholic beverage consumed as a stimulant during warriors' worship rituals; according to some sources, it was obtained from a special plant, while others claim it was made from grape skins (Atasü & Yücesir, 2004). This term began to be used in England through the Bavarians and entered English as “doping” in 1889 (Akgün, 1993).

Doping Substances

Doping substances can be classified as stimulants, narcotic analgesics, anabolic steroids, beta blockers, diuretics, peptide hormones, and substances with anti-estrogenic effects.

Stimulants; Stimulants are also known as psychostimulants. These are drugs that increase central nervous system and bodily functions. Available in both prescription (legal) and non-prescription (illegal) forms, these substances are widely used worldwide for performance enhancement or recreational purposes. As of 2013, the most commonly prescribed stimulants include lisdexamfetamine, methylphenidate, and amphetamine (Morton & Stockton, 2017). In the context of sports, stimulants are defined as agents that induce a state of alertness, affect movement and appetite, and exert their effects through the sympathetic nervous system. These substances may be used by athletes to gain a performance advantage due to their effects, such as increasing psychological motivation and supporting cognitive alertness. Additionally, they support peripheral circulation by increasing cardiac output and can create positive effects on performance in the early stages of exercise by increasing the amount of blood reaching the muscles (Sözen & Aslan, 2020).

Narcotic analgesics; Narcotic (opioid) analgesics are among the groups of drugs prohibited for use, particularly during competition periods, as listed in the prohibited substances list published and regularly updated by WADA. However, the absence of non-steroidal anti-inflammatory drugs from this list increases the risk of misuse of these drugs in sports (Tatar et al., 2012).

Anabolic steroids; Anabolic steroids, more accurately termed anabolic-androgenic steroids, are synthetic derivatives of the hormones testosterone or dihydrotestosterone, which are naturally present in the male body (Yavuz, 2004). Anabolic androgenic steroids are misused by both professional and amateur athletes to increase muscle mass and strength, improve physical performance, or enhance physical appearance. Despite the fact that numerous side effects have been identified for these substances, which are typically taken in cycles lasting 4 to 12 weeks, and despite strict monitoring by sports authorities, usage rates continue to increase each year (Alpertunga & Kara, 2015).

Beta blockers; Beta blockers help the heart muscle work more efficiently, and due to their inhibitory effects on the nervous system, they are preferred in sports such as archery and shooting that require precise motor skills, specifically to prevent involuntary movements like hand tremors caused by stress and excitement during competitions. Additionally, they are used to enhance performance in endurance sports by reducing heart rate through their ability to lower circulating catecholamine levels (Günay, 1998). On the other hand, beta-2 agonists are known to increase muscle mass, reduce body fat percentage, and relax smooth muscles in the airways. However, long-term use may lead to various side effects such as tremors, fatigue, restlessness, irritability, hypertension, cardiac arrhythmias, and muscle cramps (Norris, 1987).

Diuretics; Diuretics are therapeutic agents used to eliminate excess fluid from the body and regulate fluid-electrolyte balance (Clarkson & Thompson, 1997). Athletes often choose to take these drugs as a single dose before competition for masking purposes or as long-term abuse. Commonly used diuretics such as furosemide, hydrochlorothiazide, and triamterene are difficult to detect in urine samples taken 24–48 hours after administration due to their short half-life (Caldwell et al., 1984).

Peptide hormones, mimetics, and analogs; Peptide hormones play an important role in regulating various physiological functions such as growth, sexual behavior, pain sensitivity, and general behavior by facilitating the transmission of chemical messages between organs. Synthetic analogues of these hormones are chemically produced drugs that exhibit effects similar to those of naturally occurring peptide hormones in the body. Human growth hormone (hGH) belongs to this group and is often preferred by athletes for performance-enhancing purposes. However, the use of this hormone can cause acromegaly by leading to thickening and enlargement of the hands, feet, ears, and skin tissues, as well as deterioration of the bones and facial features. Additionally, serious side effects such as diabetes, heart and thyroid disorders, menstrual irregularities, decreased sexual desire, impotence, and shortened lifespan are also possible (Aracı, 2001). Athletes use these hormones and their derivatives to increase natural steroid production, enhance aerobic capacity, accelerate tissue repair, and stimulate hormone production (Özel, 1995).

Anti-estrogenic; The misuse of these drugs by athletes is generally carried out with the aim of artificially increasing testosterone levels. However, this is unacceptable from a legal and ethical standpoint and is considered doping by many sports organizations. The use of these drugs not only threatens the athlete's health but also undermines fair competition and seriously damages the principle of fair play (Ertaş, 2005).

Reasons for Doping Use

The primary reasons for doping include athletes' desire to achieve success and their aim to gain economic benefits from this success. In addition to these fundamental motivations, the desire to gain self-confidence,

achieve recognition, and attain fame are also among the other important motivational factors that encourage doping. Furthermore, it is known that in some athletes, the use of banned substances is directly or indirectly supported and encouraged by their coaches or family members (Tezonarıcı, 2018).

Anti-Doping

The first state-supported legal initiatives to combat doping, outside of doping committees, were launched in Austria in 1962. In this context, a circular issued by the Ministry of Sports subjected athletes who used doping and their affiliated clubs to severe penalties. In 1964, an anti-doping bill was submitted to the French parliament and was unanimously passed and enacted in 1965. Belgium also took significant steps in the fight against doping by passing a similar law that same year. However, it has been difficult for parliaments in many countries to enact such regulations. The main reason for this is that many countries directly classify the possession, sale, and use of stimulants as crimes at the constitutional level and therefore do not need separate legislation to combat doping (Orhan et al., 2006). In 1966, the International Cycling Union (UCI) and FIFA officially began implementing doping control programs (De Rose, 2008).

Throughout the 1980s and 1990s, despite being unethical, secret doping programs organized by some pharmacists and sports medicine specialists became widespread in various sports. Following the seizure of large quantities of performance-enhancing substances and equipment by French police during the 1998 Tour de France, the International Olympic Committee (IOC) organized a World Conference on "Doping in Sport" in 1999. As a result of this conference, a global structure was established to take the lead in the fight against doping, operating independently of sports organizations and governments, and the World Anti-Doping Agency (WADA) was created (Baron et al., 2007).

World Anti-Doping Agency (WADA)

The first recorded instance of doping was documented in 1865 in the context of swimming. Starting in the 1970s, doping became systematic, particularly in Eastern Bloc countries, and began to be implemented as "state doping." During this period, athletes were given training based on fair play, while criminal penalties were developed for those who used banned substances. The first official doping tests were conducted on athlete urine samples at the 1968 Mexico Olympics; blood tests were added in subsequent years. In 1985, the fight against doping was decided upon by an international convention at the UNESCO General Assembly, and these decisions were approved by the parliaments of the countries and announced as a joint text (Başaran, 2016). During the 1980s and 1990s, despite being unethical, secret doping programs were implemented across many sports under the guidance of some pharmacists and sports medicine specialists. Following the seizure of large quantities of performance-enhancing substances and equipment by French police during the 1998 Tour de France, the International Olympic Committee organized a World Conference on "Doping in Sport" in 1999. As a result of this meeting, a global agency was established to lead the fight against doping, operating independently of the IOC, sports organizations, and governments (Baron et al., 2007). The World Anti-Doping Agency (WADA) is an independent authority established in 1999 with financial support from the IOC and national governments. It has the authority to impose sanctions for doping violations, publish the list of prohibited substances, and determine testing methods. Its goal is to standardize doping rules in sports at a global level (Gleaves & Christiansen, 2019). The World Anti-Doping Program is based on a core document known as the Code. The purpose of the Code is to ensure universal compliance in the fight against doping, making efforts in this area more effective and coordinated. In this context, while full compliance is targeted in certain areas, the necessary flexibility is also maintained in terms of the applicability of the rules. WADA implemented its first major application at the 2000 Sydney Olympics with doping control regulations. Since the 2004 Athens Olympics, it has become the main authority in the fight against doping worldwide. The revision process of the Code, which began in 2006, was completed at a conference held in 2007, and the updated version came into force on January 1, 2009. International Olympic Federations, national Olympic and Paralympic committees, and various sports organizations adopted and implemented this Code prior to the 2004 Athens Olympics (World Anti-Doping Agency, 2003).

The Fight Against Doping in Turkey

In 1989, under the protocol signed between Hacettepe University and the General Directorate of Youth and Sports, the Turkish Doping Control Center (TDKM) was established within Hacettepe University. The center successfully completed the accreditation tests and audit processes conducted by the International Olympic Committee (IOC) in 2001. However, as a result of the First World Doping Conference held in 1999, the World Anti-Doping Agency (WADA) was established independently of the IOC, and all doping control activities were transferred to this organization starting in 2004. WADA made the ISO 17025 standard mandatory for laboratory accreditation; in this context, TDKM obtained the

necessary accreditation from the British accreditation body UKAS in 2003 and was officially recognized by WADA. In the following years, the center successfully passed the annual audits conducted under WADA and ISO 17025, maintaining its accreditation and continuing its activities. The Turkish Doping Control Center has operated in accordance with WADA rules throughout this process, serving as a WADA-approved Doping Control Sample Analysis Laboratory. Between 2001 and 2011, approximately 22,000 samples from national and international competitions, camps, and various major events were analyzed. However, in 2011, the center's accreditation was revoked due to certain structural and technical reasons. TDKM was re-accredited by TÜRKAK and WADA in 2015 and resumed its activities (Hacettepe Doping Control Center, 2025). The Turkish Anti-Doping Agency organizes educational seminars on anti-doping measures for national team coaches, Physical Education and Sports Department students, academics, and relevant institutions in different regions of Turkey. Furthermore, awareness activities on doping are also carried out through written and visual media (Başaran, 2016).

CONCLUSION AND RECOMMENDATIONS

Recent developments in the field of sports and the increasingly competitive environment have led athletes to resort to banned performance-enhancing substances and methods in order to achieve success. Doping is not only a form of behavior that violates sports ethics, but also a practice that seriously threatens the physical and psychological health of athletes. The evaluation of athletic success alongside its sociological and economic benefits has emerged as one of the key factors driving the increase in doping use. In addition, it is known that some athletes are encouraged to use doping, either directly or indirectly, by their coaches and close associates. When examining the historical process, it is seen that the fight against doping began to institutionalize in the mid-20th century, and that common standards were developed on a global scale, particularly with the establishment of the World Anti-Doping Agency (WADA) in 1999. Thanks to the Code published by WADA and the list of prohibited substances, which is updated annually, a comprehensive approach to combating doping has been adopted at the international level. Turkey has also been involved in this process through the Turkish Anti-Doping Agency (TDKM), established in 1989, which has played an active role in the fight against doping through its education, analysis, and monitoring activities. However, it is clear that the fight against doping should not be limited to testing and penalties. In this regard, the following recommendations have been developed:

Education and Awareness: Awareness-raising activities regarding doping should be increased for athletes, coaches, medical personnel, and other stakeholders in the sports community; educational seminars should be systematized.

Ethical Sports Culture: Ethics-based programs should be promoted in schools and sports clubs to instill fair play principles in athletes from an early age.

Legal and Institutional Framework: National-level legal regulations and criminal penalties related to the fight against doping should be clarified; control mechanisms should be operated in a transparent and independent manner.

Psychological Support: Psychological support services should be expanded and regular counseling provided to prevent athletes from resorting to doping due to pressure to succeed.

Scientific Research and Laboratory Capacity: Laboratory infrastructure must be strengthened to ensure the sustainability of effective analyses in the fight against doping; universities and research centers should be actively involved in this process.

In conclusion, combating doping is a global issue that requires a multi-faceted approach. This fight must focus not only on testing and punishment, but also on ethical, educational, and structural measures. For the sustainability of a fair and healthy competitive environment that is consistent with the nature of sport, it is essential that all stakeholders act in concert.

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