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Print ISSN: [3006-2497](#) Online ISSN: [3006-2500](#)Platform & Workflow by: [Open Journal Systems](#)<https://doi.org/10.5281/zenodo.17450267>**The Effect of Anabolic Androgenic Steroids Consumption by Sportspersons and its Legal Upshots in Pakistan****Dr. Abida Abdul Khaliq**

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The present study is conducted to probe Anabolic Androgenic Steroids consumption by sportspersons. Steroids among other banned drugs, substances, and derivatives pairing are a core problem in the field of sports. Drugs necessitate in the field of sports to grant punishments, irrespective of one's voluntary participation in the sports. The study is initiated with the historical evolution of the notion, Anabolic Androgenic Steroids, then the same extended towards the dilemma of present-day sports, legal recognition, and legislative measures of sports federations nationally and internationally in developed and underdeveloped countries. The need to study about reviving rules of ethics, morality, equality, fair play, and the true spirit of sports. The article further explores how the legal structures of developing countries are attempting to battle this new form of a banned substance and the efforts of developing and underdeveloped countries in framing rules and regulations for the control of Anabolic Androgenic Steroids at national and international forums. The Anabolic Androgenic Steroids consumed by sportspersons at the national level are not tested properly and are taken for granted while sportspersons repeat same practice at international events and competitions. This act not only is harmful and risky to their health but also brings a bad name and reputation to respective nations as well as defeating the spirit of sport. Later in the paper critical analysis of developed countries' legislations and international measures in the field of doping and banned drugs control is evaluated to identify the lacuna in developing countries' measures in the control of banned substances nationally and internationally. The paper also evaluates the efficacy of penalties for doping with the magnitude of danger and risk involved in the consumption of Anabolic Androgenic Steroids. In developed countries, the example of Canada is taken to examine their modus operandi, for combating this

emerging problem in sports, regulating principles of justice, and reviving the moral and ethical values of sports. Moreover, it is illuminating the efforts of developing countries by citing the example of Pakistan's anti-doping agency for controlling this ill practice in sports. Lastly, it is concluded that problem of doping is a global problem that may be resolved effectively through the formation of strict penalties including heavy fines that are to be imposed not only on the sportspersons but on everyone who is either directly or indirectly involved in Anabolic-Androgenic Steroids consumption by the sportsperson. Independent commission or bureau to inspect the compatibility and effectiveness of said laws to bring reforms in the prevailing legal system for controlling the use of Anabolic Androgenic Steroids and to promote education, ethic, and morals through the adoption of changing international trends in reviving the real spirit of sports.

Key Words: *Anabolic Androgenic Steroids, Sports, Doping, Legislations, and Legal Reforms.*

1. Introduction

Professional sportspersons use blood doping to enhance their performance and stamina. The “Anabolic Androgenic Steroids” are commonly known as Anabolic Steroids ¹. The [American College of Sports Medicine](#) acknowledges that Anabolic Androgenic Steroids, in the presence of an adequate diet, can contribute to increases in [body weight](#), often as lean mass increases. The use of Anabolic Androgenic Steroids also increased the muscular strength in individuals in addition to exercise and proper diet.²

The Anabolic Androgenic Steroids are used by sportspersons in various sports such as swimming, distance running, cycling, boxing, tennis, and even in cricket. These anabolic androgenic steroids are taken to build an artificial performance that is to increase their energy and prevent fatigue that is hazardous for health and even life-threatening in most cases. These performance enhancers are readily available in the market without any system of check and balance or surveillance. Some sportspersons make their special formula using the available market material. It is a race with no end except disaster and death. In the 1950s, the first anabolic steroids came into use and thereby causing the first death by these drugs. The person died was a British cyclist from an overdose of trimethyl in Paris, Also during the 1950s, the first modern-style doping scandal occurred, setting the example of modern-day scandals for how many future scandals and stories would play out in the media and beyond.³

2. Research Methodology:

The research methodology to be applied is qualitative, and the laws of using anabolic androgenic steroids in Pakistan will be researched with the references to the international regulations. There are also some recent cases of doping in the study in order to have a modern approach. Moreover, the arguments are reinforced by scholarly articles, international journals, law reviews, and powerful books on application of anabolic androgenic steroids in sports. The study will endeavor in identifying the effects of overuse of anabolic androgenic steroids on life expectancy and what can be done to reduce misuse of steroids in the society.

¹ Andrew kicman, “Pharmacology of Anabolic Steroids”, BR J Pharmacol : (2008), 502-521.

² Joel E Houglum and Gary L Harrelson, *Principles of pharmacology for athletic trainers*,(west Deptford Township: SLACK,2006), 463.

³ Daniel M. Rosen, *Dope A History of Performance Enhancement in Sports from the Nineteenth Century to Today*: (Santa Barbara: ABC-CLIO, 2006), 239.

3. Result:

This study tends to explore the impact of the problem of lacking a proper system from governments that regulates the use of anabolic androgenic steroids usages by sportspersons specifically and by the general population too. The present study chalks out the need of harmonizing laws for the use of drugs and Anabolic Androgenic Steroids law at the national and international levels having strict legal consequences in case of violation. The lack of rules, regulations, and enactment in the administration and use of Anabolic Androgenic Steroids has given rise to its illicit usage all over the world, especially in developing countries. In the past few years, its usage has increased to a tremendous amount not only among sportspersons but in other areas of society including students as well as professionals.

The expansion of the use of anabolic androgenic steroids to such an extent is an alarming situation for Pakistani society. There is a dire need to identify the boundaries regarding the use of Anabolic Androgenic Steroids usages in developing countries. Therefore, existing laws should be redefined, and if required new laws should be enacted. The lack of an appropriate system that governs the use of Anabolic Androgenic Steroids mainly resulted in their ill-usages by sportspersons in developing countries. One example of this is, that sportsmen today inject oxygenated blood into their blood before an event is an (illegal) attempt to enhance their performance, a higher concentration of oxygen in the lungs increases the sportsperson's endurance and performance. The lack of a proper system for the legal use of such drugs and its regulations resulted in illegal uses to an extent that it is alarming for society, as it drips off into other segments of society mainly students and general society apart from its illegal use by the sportspersons.

Anabolic can be describes as building up of the tissues. The word, Steroid on the other hand, refers to a group of compounds that occur in plants, animals, with sex hormones, cholesterol and toad poison, among others. It should be pointed out that Anabolic Androgenic Steroids are only a fraction of steroids which are divided by a category. There is a common atomic structure of all the steroids which is the four-ring fused carbon structure.⁴

Different substitutes of steroids on the carbon rings cause different biological properties of steroids. Conversely, androgenic is a term used to refer to drugs which induce secondary sex characteristic in males.⁵ Different substitutes of steroids on the carbon rings cause different biological properties of steroids.⁶ Conversely, androgenic is a term used to refer to drugs which induce secondary sex characteristic in males.

The Anabolic Androgenic Steroids are man-made and like the male hormone testosterone they have a variety of roles to play in embryo development and development of the male features during puberty.⁷ Also

⁴C. D. Kochakian, "Historical Review of Anabolic-Androgenic Steroids," *Anabolic-Androgenic Steroids*, 1976, 34, doi:10.1007/978-3-642-66353-6_1.

⁵ Herbert A. Haupt and George D. Rovere, "Anabolic steroids: A review of the literature," *The American Journal of Sports Medicine* 12, no. 6 (1984): 469, doi:10.1177/036354658401200613.

⁶ S. J. Enna, "Goodman & Gilman's The Pharmacological Basis of Therapeutics Edited by Joel G. Hardman, Lee E. Limbird, Perry B. Molinoff, and Raymond W. Ruddon. McGraw-Hill, New York. 1996. 1905 pp. ISBN 0-07-026266-7. \$89.00," *Journal of Medicinal Chemistry* 40, no. 16 (1997): 21, doi:10.1021/jm9703146.

⁷ Shalender Bhasin and William J. Bremner, "Emerging Issues in Androgen Replacement Therapy1," *The Journal of Clinical Endocrinology & Metabolism* 82, no. 1 (1997): 42, doi:10.1210/jcem.82.1.3640.

processes like bone metabolism, protein metabolism, plasma lipid and cognition in males are regulated by testosterone. It is rather difficult to come up with a definition of doping because the organizations, coaches, athletes, and those engaged in sports must agree on the core values involved in sports. The International Olympic Committee does not really give a full definition of doping but instead looks at giving definition of drugs and agents of doping. Sir Arthur Porritt, Chairman of the British Association of Sports Medicine gave his opinion on what character constitutes as real doping, not one by a mere rhetoric.⁸

Eventually, Anabolic Androgenic Steroids were outlawed by the International Olympic Committee in the year 1976 because adequate methods of screening were not available before then. In 1982, testosterone was also prohibited because of the lack of testing methods as exogenous testosterone can be identified in testing. The confirmation of a positive test result of testosterone abuse is achieved through analysis of peak height ratio where 6:1 or more is taken to be positive.⁹ Physical exhibition, testing of the blood, urine and doping analysis are some of the ways used to detect misuse of steroids. The sequence of examination starting from taking a history, a physical examination and ending with laboratory testing. Normally a mere physical examination is enough to ascertain an Anabolic Androgenic Steroid user. In males, the heavy muscles, and acne are the symptoms of steroids consumptions. Similarly, in the females the symptoms are male pattern hair growth, voice deepening, and breasts tissue atrophy.¹⁰ Still, there is a dire need for useful screening methods to ascertain the misuse of steroid consumption apart from FFMI (Fat-Free Mass Index) not only for the individual's suspect of possible medical and psychiatric effects of steroid misuse but also for the forensic application. The developed countries including United States and Canada categories steroids in the controlled substances and may at times induce criminal behavior.¹¹

Medical professionals are debating on Anabolic Androgenic Steroids from long time but these are used by athletes for quite a half of century. These medical studies lack the key concept of supra physiologic self-administered doses of these Anabolic Androgenic Steroids by the peoples of almost all spectra of life. In the recent past, studies were carried out concerning the cure of some diseases like hypogonadal men, age-related sarcopenis, and HIV-related muscle deterioration.¹² Doctors are prescribing approximately four million American men testosterone replacement therapy.¹³ Due to the rapid demand for Anabolic Androgenic Steroids

⁸ Arther S. Porritt, "doping," *The journal of Sports Medicine and Physical Fitness* 5 (1965), 166.

⁹ A. Herr et al., "30-jähriger Bodybuilder mit septischem Schock und ARDS bei Abusus anabol-androgener Steroide," *Der Anaesthesist* 51, no. 7 (2002): 107, doi:10.1007/s00101-002-0335-4.

¹⁰ Robert E. Sallis and Nick Evans, "Spotting Steroid Use: Which Physical Clues?," *The Physician and Sportsmedicine* 31, no. 5 (2003): 18, doi:10.1080/00913847.2003.11440593.

¹¹ Elena M. Kouri et al., "Fat-Free Mass Index in Users and Nonusers of Anabolic-Androgenic Steroids," *Clinical Journal of Sport Medicine* 5, no. 4 (1995): 5, doi:10.1097/00042752-199510000-00003.

¹² A. Vermeulen, "Androgen Replacement Therapy in the Aging Male—A Critical Evaluation," *The Journal of Clinical Endocrinology & Metabolism* 86, no. 6 (2001): xx, doi:10.1210/jcem.86.6.7630.

¹³ Lacayo R, "Are you man enough?," *Time Magazine*, April 24, 2000,58-64.

in medical and nonmedical areas, there is a rise of 20% to 30% every year in its demand and sale.¹⁴ Several international bodies deal with the problem of Doping in sports. The most renowned and active are as under;¹⁵

- I. World Anti-Doping Agency
- II. World Anti-Doping Code
- III. Council of Europe Anti-Doping Convention
- IV. United Nations Educational, Scientific and Cultural Organization(UNESCO) International Convention on Doping against Sports
- V. Court of Arbitration for Sports

When they are administered for a short term by the professionals then they have significant effect.¹⁶ The Steroids are taken in the form of dietary supplements such as Dehydroepiandrosterone (DHEA). The human body then turns this dietary supplement into other hormones like cortisol, testosterone, and estrogen that are used to help the body to build muscles. The dietary supplements working has not yet been proven, but if one takes them in large quantities, they can cause the same side effects as anabolic androgenic steroids¹⁷.

The effects of Anabolic Androgenic Steroids consumption were questioned from long time, but today's scientific study and research do support the overall efficiency of these regimens. These steroids have a potential effect on muscle fibers, muscle strength, and an increase in body mass. Irrespective of the risks of the subjective side effects. Illegal Anabolic Androgenic Steroids are a very attractive and powerful lure to professional athletes who require high performance, speed, and strength, and people that require cosmetic muscle makeovers. During the past few decades, the discovery of novel therapeutic uses for physiologic doses of Anabolic Androgenic Steroids when administered under medical supervision and in short term, they have not any significant adverse effects¹⁸.

Dr. Robert Kerr and Charlie Francis are known as the strongest proponents and widely acknowledged "gurus" of performance-enhancing drugs that are used by athletes emphasizing that Anabolic Androgenic Steroids are not a shortcut to victory. An intense training program is required and only athletes at the highest level of international performance would be benefitted from the Anabolic Steroids.¹⁹

¹⁴ Institute of Medicine, Board on Health Sciences Policy, and Committee on Assessing the Need for Clinical Trials of Testosterone Replacement Therapy, *Testosterone and Aging: Clinical Research Directions* (Washington: National Academies Press, 2004).

¹⁵ Jesper Andreasson and Thomas Johansson, "Doping—Historical and Contemporary Perspectives," *Fitness Doping*, 2019, 11, doi:10.1007/978-3-030-22105-8_2.

¹⁶ J. Hoberman, *Testosterone Dreams: Rejuvenation, Aphrodisia, Doping* (Oakland: University of California Press, 2005).

¹⁷ "Anabolic Steroids," HealthLink BC, accessed September 7, 2020, <https://www.healthlinkbc.ca/health-topics/za1277>.

¹⁸ Nick A. Evans, "Current Concepts in Anabolic-Androgenic Steroids," *The American Journal of Sports Medicine* 32, no. 2 (2004): xx, doi:10.1177/0363546503262202.

¹⁹Canada. Commission of Inquiry into the Use of Drugs and Banned Practices Intended to Increase Athletic Performance and Charles L. Dubin, *Commission of Inquiry Into the Use of Drugs and Banned Practices Intended to Increase Athletic Performance* (The Commission, 1990), 103.

4. Problem of Doping in Developed and Underdeveloped Countries:

The doping is affecting underdeveloped countries on a larger scale as compared to developing countries for this much higher rate. The argument can be twofold: firstly; poverty, lack of knowledge, and research. Secondly, the reason can be attributed to the procedural complexity of systems starting from drug laws to pharmaceutical companies. Most of the time winning a competition is considered more important than anything else. This culture of drugs in sports is dangerous for the health of players. Technically all national and international sports federations should take coercive measures to discourage such ill practices in sports. In developed countries, an example of Canada is taken, because it is the first country that took initiative in this regard, both nationally and internationally. In Canada, sports are an important aspect of the culture social, and economics. In recent times there is an increased involvement of Canada's federal and provincial governments in sports and its funding. The minister of the crown expressly and consistently states the legitimacy of such consistency in sports and its funding in its reports.²⁰ In sports role of the Canadian government is very essential and undeniable; by sports, the Canadian government encourages the physical activity of the entire nation in promoting the unique Canadian identity by providing equal opportunities to all Canadians. The government of developing countries should give attention to sports the same as it gives to the other areas of the cultural policy.²¹

The Canadian minister of state for amateur and fitness sports, Jean J. Charest 1988 expressed his support and emphasized that his predecessor's stance on government support and involvement in sports should be promoted. He on several occasions emphasized that Canada is a country of competitive, proud, and diverse culture.²² With time as the country has matured and changed involvement of the government in the field of sports has also changed. The concerns of the Canadian government regarding the general health and fitness of the sportsperson has been evolved, to a more complex and modern way by the new international standards. The level of Canadian government funding has also been increased accordingly. Sport is a medium for the government of developed countries by which it reflects the outer world traits like honesty, fairness, and modern and healthy society that cover almost all cross sections of the population, beyond the cultural, ethical, and religious barriers.²³

²⁰Canada. Commission of Inquiry into the Use of Drugs and Banned Practices Intended to Increase Athletic Performance and Dubin, The Commission 1990,17.

²¹ Lloyd Brown-John, "Sport and Politics in Canada: Federal Government Involvement Since 1961" Donald Macintosh with Tom Bedecki and C. E. S. Franks Montreal: McGill-Queen's University Press, 1987, 210," *Canadian Journal of Political Science* 21, no. 3 (1988): 32, doi:10.1017/s0008423900056936.

²² "Highlights of the 1976 Fitness and Sport Survey. Fitness and Amateur Sport Branch, Health and Welfare Canada, The Journal Building, 365 Laurier Avenue West, Ottawa, Ontario, Canada K1A 0T6. 1977. Unpaged," *Journal of Travel Research* 17, no. 2 (1978): 15-17, doi:10.1177/004728757801700214.

²³Canada. Commission of Inquiry into the Use of Drugs and Banned Practices Intended to Increase Athletic Performance and Dubin, The Commission 1990,41.

For this discussion on the case of developing countries, let us take the example of Pakistan as a developing country. In Pakistan, sports are a medium by which people of Pakistan preserve their integrity and identity. Sports provide a medium to all the citizens of Pakistan to benefit them financially, and socially as well as add honor to the nation, as a role model and source of inspiration for the young players. Sports also provide Pakistani players the opportunities to travel abroad learn new experiences and represent Pakistan internationally as ambassadors. With time this primary objective of sports faded away now the primary objective of government involvement in sports is for the reason of winning medals rather sportsman spirit. This led to re-examining the government's role and mandate in sports. Pakistan has not been very active in the fight against Anabolic Androgenic Steroids consumption nationally and internationally, as compared to developed countries.

After critically analyzing the problem of doping and consumption of Anabolic Androgenic Steroids by sportspersons, it became evident that there exist two extreme mindsets. One mindset is that Anabolic Androgenic Steroids along with other banned substances should not be banned. Rather, any subsequent act rendered by the use of banned substances should be curbed or held liable accordingly. The second mindset is that everything that falls within the ambit of intoxicant should be banned completely. These two extreme mindsets not only discourage the acceptability of the existing problem but also the means and ways by which the problem of Anabolic Androgenic Steroids can be minimized and controlled. Presently it is a need of time to find a moderate approach that brings the two extreme, strict and rigid mindsets together for a practical and acceptable solution to the problem of doping in sports, but the question is still about its accomplishment.

5. Legislations and Legal Analysis:

The control of anabolic androgen steroids is a pioneer invention by developing countries in form of rules, regulations and laws. The example of Canada is being captured on this side of the globe since as the first developing nation to pursue an international initiative as well as national initiative. World War II in 1941 and the National Act on Physical and Fitness Act of 1943 of the military became the adopters of men. It was also noted that out of them, 33 percent could not finish a five-mile walk. During that period, the National Council of Physical Fitness Act, which had begun in 1943, was utilized in the process of enhance physical fitness in the Canadians.²⁴ Every person, his family and his country require health, strength, perseverance and fitness. This law does not only promote physical fitness and health of the person, but also mental, moral and mental health.²⁵ Passed in 1961, Fitness and Amateur Sports Act was proclaimed to stimulate individual fitness and amateur sports. Amateur sport can only be helpful in moments of relaxation, physical activities and pleasure, though which were spelt out in Section 3 of conduct to mean a sporting activity as opposed to living hood. Its adoption

²⁴ Canada. Commission of Inquiry into the Use of Drugs and Banned Practices Intended to Increase Athletic Performance and Dubin, The Commission 1990,47.

²⁵ "Anabolic Steroids," *Sports Dermatology* (n.d.), xx, doi:10.1007/978-0-387-40045-7_18.

of this behavior is more significant with the basis of fitness and amateurism that has expanded the mass beyond the conventional physical fitness of sports in Canada.²⁶

National Advisory Committee on Fitness and Sports established since the National Fitness Amateur Sports Council, Fitness Amateur Sports Act. The other two acts were also in the service of this cause and these two acts were namely, the Fitness and Anchor Sports Act, and the National Fitness and Anchor Sports Council.²⁷ The exercise of the Task Force set up by the Canadian Prime Minister, Pierre Trude, which was called the Task Force on Sports to the Canadians in 1968, was to further popularize, develop and promote the discipline of sports coupled with the an idea of sports. Most of the bodies in the sport were set up in 1969 and the recommendation of the task force. Sports Canada was one of them.²⁸ The ineptitude of most athletes in the subjects of management and organizational skills was to be conquered through the introduction of the National Sports and Recreation Centre for Recreation Centre with the opening of the National Sports and Fitness Recreational Center (Sports Canada1969). It sports a 60-person national organization that is located alongside the center along with lots of roofing agents.²⁹

Munro White Paper 1972-1973 (Sports Policy Proposal for Canadians) adds more budget to sporting activities at the national and international level. A number of reasons were quoted in the white paper. One of them was the main role in helping people to develop personally and being healthy. The values obtained were not economic since it was a will force for their will. The other reasons included physical to mental health interactions and other people that aided the human mind. The white paper can reproduce the entire image of sports by introducing the human soul to the sports.³⁰ The inception of Sports Information Resource Center 1973 (SIRC) is the biggest database used to develop the technological and practice of sports in the globe. The United Nations Education and Scientific and Cultural Organizations (UNESCO) also acknowledge it as the largest database of the English language in the world. Each information is revised along with the emergence of new developments.³¹

In 1975, Still the Canadian government founded the Athletic Intelligence Bureau, one of the foundations of the intelligence athletics.³² The role of Athletic Information bureau was to inform the athletes. This fact is mainly associated with the set of doping issues and prohibition of anabolic androgen steroids. Canadian Sports Medical Council formation of Canadian Medical Council since 1978 due to the 1969 Task Force recommendations,

²⁶ Canada. Commission of Inquiry into the Use of Drugs and Banned Practices Intended to Increase Athletic Performance and Dubin, The Commission 1990,57.

²⁷ Canada. Commission of Inquiry into the Use of Drugs and Banned Practices Intended to Increase Athletic Performance and Dubin, The Commission 1990,63.

²⁸ , "Anabolic Steroids," *Encyclopedia of Sports Medicine*, 2011, 20, doi:10.4135/9781412961165.n21.

²⁹ William C. Bleyer et al., "Physical Fitness, Sports Medicine and Recreational Sports — a Perfect Marriage?," *Recreational Sports Journal* 9, no. 2 (1985): 16, doi:10.1123/nirsa.9.2.48.

³⁰ White P. Government of Canada, "White Paper," *aboriginal policy studies* 1, no. 1 (2011): 14, doi:10.5663/aps.v1i1.10138.

³¹ "Who is SIRC," The Sport Information Resource Centre, last modified November 23, 2020, <https://sirc.ca/about-sirc/>.

³² "Athletes," The Sport Information Resource Centre, last modified December 4, 2019, <https://sirc.ca/athletes/>.

associated four institutions to travel around the country and overseas with physical therapists, physicians and massage therapists' teams. These four are the agents:³³

Canadian Academy of Sport Medicine
Canadian Association of Sport Sciences
Canadian Athlete Therapist Association
Canadian Physiotherapy Association.

Creation of Commission of Fair Play 1986, This commission was initially created to address the issue of violence in sports but later on other areas of ethics in sports were included in it.³⁴ The Food and Drug Act and the Narcotic Control Act both simultaneously govern all the s and substances through a classified system. At one end some drugs are controlled with deterrence and at the other end, there are substances over which little control is exercised. The authority granted to the federal ministers of health and welfare under the National Health and Welfare Act, of 1985 is to promote the social welfare, health, and social security of the people of Canada.³⁵ The Anti-Doping policy enactments are as under;

Food and Drug Act, R.S.C. 1985, c. F-27

Narcotic Control Act, R.S.C. 1985, c. N-1

National Health and Welfare Act, R.S.C. 1985, c. N-10

In Canada despite legislation and efforts Anabolic Androgenic Steroids prevalence among sports persons is prevalent. It is a continuous battle and no one knows how many of us will be using such ill and banned drugs during the next few decades for delaying aging, enhancing the beauty of the physical body or appearance, improving cognition, and aiding athleticism.

The developing counties are on the other side of the globe. Countries like Pakistan are being affected by the problem of doping in sports on a larger magnitude³⁶. The doping control mechanism is adopted by Pakistan Sports Board after signing United Nations Educational, Scientific and Cultural Organization draft on Anti-Doping. There is a whole set of rules in Pakistan's anti-doping code. The awareness and knowledge about the use of Banned drugs need to be spread not only to sportspersons but to people who are directly and indirectly involved with the sports. Sports federations, the government, Pakistan Sports Board (PSB), Pakistan Olympic Association (POA), and every other stakeholder need to act proactively to stop the menace before it causes even more harm. Pakistan Cricket Board Anti-Doping Committee (Jan 2012), The Pakistan Cricket Board anti-doping committee was established to control the problem of doping in cricket.

³³ Canadian Association of Sports Sciences and Sport Medicine Council of Canada, *Physiological Testing of the Elite Athlete* ([Hamilton, Ont.]: Published by the Canadian Association of Sport Sciences, in collaboration with the Sport Medicine Council of Canada, 1982), 68.

³⁴ Jean Harvey, "Chapter I. The Evolution of Federal Sport Policy from 1960 to Today," OpenEdition Books, accessed October 16, 2020, <https://books.openedition.org/uop/699?lang=en>.

³⁵ Canada. Commission of Inquiry into the Use of Drugs and Banned Practices Intended to Increase Athletic Performance and Dubin, *The Commission* 1990,154.

³⁶ K.P. Mohan, "Doping in Sports," *Sports Studies in India*, 2021, xx, doi:10.1093/oso/9780190130640.003.0018.

Pakistan Sports Board Medical and Rehabilitation Centre (1962), In the sports medical center sports medicine specialists are working with sportspersons in the area of injury and pain management. The rehabilitation and medical center helped players to overcome their muscle weakness, pain management, and anti-doping.³⁷ Announcement of Pakistan bodybuilding federation (Nov. 2018), It announced that all the gyms and clubs will be registered across the country and spread awareness about drugs and supplements to control the unauthorized use of these drugs. The Federation made a mandatory rule for the clubs to issue an affidavit. Affirming that they will not use any banned substance for rapid muscle growth.³⁸ Pakistan Antidoping organization is the only national anti-doping organization that is recognized by the regional anti-doping (South-Asian) and world anti-doping agency, its headquarter is established in Islamabad the government of Pakistan and the national Olympic committee also recognizes it.³⁹ The anti-Doping Organization of Pakistan is an independent authority and body of the disciplinary and appeal panel of the national anti-doping authority. Anti-Doping Organization of Pakistan (ADOP) on 20 May 2008 adopted the World Anti-Doping Code, adopt the rules and procedures to control the problem of doping in sports, and eradicate the problem. These rules and regulations provide a condition precedent to the sportspersons. The sportspersons will not be allowed to play unless and until they give a consensus on rules and regulations for doping control. The intention of these rules and regulations is, to promote the concept of fair sports which should be respected and honored by all the adjudicating bodies in sports.⁴⁰

Anabolic Androgenic Steroids in the area of sports are open to abuse. All countries around the world must arrive at similar procedures for its control. Strict penalties and imprisonment be awarded not only to players but to those who provided them with such banned substances. Despite all legislation for doping control mechanisms, the real spirit of sports must be revived. Without ethical and moral values the true spirit of sports can never be achieved.

6. Conclusion:

The inference can be drawn from the above discussion, that Anabolic Androgenic Steroids are an emerging challenge to the modern-day sports world. Due to globalization, it is nearly impossible that any government can avoid exposure of its sportspersons to changing trends in sports as well as other areas of life. A collective effort is required by states all over the world. The problem of doping is a global issue. Every government should take necessary and proper measures to discourage this ill practice in the field of the sport by ratifying international conventions, mutual agreements, and memorandum of understanding with the developed countries on the issue of doping. Pakistan has not been very active in the international campaign against doping but with time the United Nations Educational, Scientific and Cultural Organization (UNESCO)

³⁷ , "Electoral Rules, Ethnicity, and Health in Developing Countries," *Coalitions of the Well-being*, 2015, 14, doi:10.1017/cbo9781316212851.001.

³⁸ "Dealing with Dope in Pakistan Sports," The News International: Latest News Breaking, Pakistan News, last modified November 18, 2018, <https://www.thenews.com.pk/tns/detail/566718-dealing-dope-pakistan-sports>.

³⁹ Adopk | Anti Doping Pakistan, accessed November 18, 2020, <https://adopk.net/>.

⁴⁰ Adopk AntiDoping Pakistan, accessed November 18, 2020, <https://adopk.net/wp-content/themes/antidoping/downloads/ANTI-DOPING%20RULES%20ADOP-%204-06-08.pdf>.

draft was ratified on the doping and in collaboration with the International Olympic Committee Pakistan Doping Agency was established and rules were made for the control of doping issues. By applying the recommendations on the problem of doping issue can be addressed more effectively and properly. Sports persons in any country are a symbol of pride and depict the overall image of the country. The Spirit of sports should be safeguarded to promote peace, prosperity, equality, and progress to make this world a better place to live.

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