

## MAIN MODERN PROBLEMS OF DOPING IN SPORT

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**Annotation.** *Purpose:* to identify and substantiate medico-biological, psychological and social problems of doping in sport. *Material:* Theoretical study is based on analysis of more than 50 scientific and methodical literatures. *Results:* it was shown that doping is one of the serious problems of modern sport and society in general. Defines important questions regarding anti-doping rules and the anti-doping control in sport. Installed the use of performance enhancing drugs in professional sports for children and youth. Given the promising solutions to the problems of doping in Ukraine. *Conclusions:* Among the problems of modern sport is becoming increasingly important issue of doping. It is an extremely complex because it involves the interrelated medical, legal, political, moral, organizational, social and pedagogical aspects. Socio-pedagogical factors of anti-doping policy in sports scientists comprehensively still not addressed. Certain aspects of anti-doping policy presented in scientific papers, which can be divided into two groups. The first group of papers is devoted to doping in sport as a social event. The second group of papers devoted to the problems of doping control. Today there is a need and objective preconditions for the development and adoption of a General concept, which would be generalized numerical amount of data received and served as a basis for developing an effective anti-doping control at the expense of improvement of legislative and normative-legal base and infrastructure of the anti-doping policy in Ukraine, which should be brought in line with modern international standards. **Key words:** doping, athlete, sport, anti-doping measures.

### Introduction

Nowadays cruel conditions of survival in modern sports force athletes to work nearly behind the limits of organism's physiological potentials. Necessary condition of sportsmen's successful functioning at present shall be nearly constant very high level their fitness and results [1, 2, 3, 14]. The problem is intensified by commercialization and professionalization of elite sports and is reflected in increasing of quantity of both commercial and official competitions and tournaments at international level. High price of a victory in modern sport results in a number of negative after effects, among which doping or taking prohibited in sports preparations or methods is especially troubling [3, 10, 12]. From medical points of view taking of such preparations as well as using of some physical methods and manipulations, often not grounded and not controlled, is vain and sometimes dangerous for health and life of athlete. In modern sports mortal cases, resulted from athlete's using prohibited substances, are often [11, 14, 20].

Except substantial harm for sportsmen's health and life, application of such means contradicts to moral ethic standards of sports and sport movement and main task of modern sports, as S.N. Bubka said, is to permanently continue uninterrupted struggle against doping that proves the words of president Jacques Porre, who said: "Doping is, surely, the strongest threat to sports in 21<sup>st</sup> century. It undermines sportsmen's health and deprives of faith in sportsmen. Though it is impossible to achieve zero level of doping, I can say we made a big step ahead. We made struggle against doping to be of first priority" [7]. Thus, one of the heaviest problems of modern Olympic sports is, as it was earlier, fight with doping. Specialists from different countries of the world are united by idea that policy of World anti-doping agency (WADA) is to large extent contradictory. Even definition of doping ("doping – is violation of one or several anti-doping rules", as it was written in Anti-doping code of 2009) is not logic and is not scientific. Sport science is developing to day in its own way, which is actually independent on WADA functioning [7, 11, 14, 15].

A lot of works of domestic and foreign authors are devoted to theory and methodic of anti-doping measures [6, 8, 10, 11, 12, 14, 17]. Scientists note that this problem includes close interconnection of medical, social, pedagogic, political, moral-ethic, economic and jurisdictional aspects.

Main efforts of sport and medical science are oriented, in general, on studying of influence of prohibited in sports substances and methods on sportsman's organism, on searching and improvement of means of its detecting, of bio-chemical components and on cheapening of doping control, determination of its simple and more effective procedures [5, 10, 11, 12, 14, 16, 17, 20]. Such approach is conditioned by demand in determination, first, of influence and after-effects of doping and then only solution of pedagogic, jurisdictional and other problems of struggle with doping in sports.

### Purpose, tasks of the work, material and methods

*The purpose of the work* is to determine and ground medical-biological, psychological and social doping problems in sports.

The research is based on analysis of scientific and methodic literature. The following *methods* were used: analysis, synthesis, generalization, comparing and analogy.

### Results of the research

Level of modern sports' development and overloads, endured by sportsmen in the process of training and competition functioning are so high that attempts to reject medical preparations at all reflect ideas of even not yesterday but of the day before yesterday. Pharmacological world market is so large that it is rather difficult to select maximally effective and necessary for some or other period of sport functioning medical preparations. It should be noted that using of some preparations as well as physical methods and manipulations, prohibited in sports first of all from medical point of view, often is not grounded and out of control and brings substantial danger for health; as per a number of registered cases – result in disablement and even death. In this connection, during several decades, international sports and medical organizations have been conducting active struggle with doping. With it, this struggle often does not bring the desired results; in spite of increasing of doping control laboratories' quantity and improvement of their equipment, practice of taking chemical substances does not disappear; sportsmen, risking their health and career use prohibited in sports means and methods, the list of which is increasing with every passing year. Taking of preparations and using of methods, included in International standard of WADA "List of prohibitions", by sportsmen is a violation of anti-doping rules in sports. With it, doping taking surely stimulates organism's workability but at the accounted of "untouchable" reserves and removal of protective inhibition. Pharmacological means of recreation shall, on the contrary, correct changes caused by tiredness and be oriented on replenishment of organism's functional reserves without stresses and sharp excitation (inhibition). Analysis of medical-biological provisioning of sportsmen shows that in Ukrainian elite sports there exists a difficult situation concerning effective using of pharmacological preparations [5, 11, 14]. It is necessary to ensure highly qualified work of sport doctors, who shall have knowledge about pharmacological dynamic parameters, i.e. individual mechanisms of separate preparations' effect, their pharmacological kinetic characteristics, portion of medical substance in organism (transport, connection with proteins, receptive molecules, bio-transformation, ways of elimination) as well as peculiarities of rational combinations of preparations from one or several groups. They shall be able to consider that as on to day there exists rather big list of "non-doping" preparations, which shall be used for influencing on factors, limiting sportsmen's workability, as well as on those, who practice physical culture or on disabled sportsmen, or population. These preparations are first of all those, which can be recommended for taking by healthy person for improvement of life quality, widening of adaptation to great physical loads limits: adaptogens of vegetation or animal's origin; some nootropics; preparations of energetic and plastic effect; immune modulators; anti-oxidants and anti-hypoxants; vitamins and vitamin complexes; exogenous natural intermediates of carbo-hydrate, protein, lipid, mineral metabolism; tested biologically active adds to meal.

Sportsmen's taking of doping preparations is dangerous for people, surrounding them. Authors note that taking of a number of preparations results in changing of sportsmen's behavior (for example increasing of aggressiveness) not motivated actions and it can result in creation of socially dangerous situations [1, 3, 4, 8, 9, 13]. Doping problem is not restricted by doping taking by professional sportsmen; it concerns young people and sportsmen-amateurs in different kinds of sports that, as on present time, has become a serious problem for health protection of Ukrainian population.

First of all penetration of doping in children-junior sports causes anxiety [8, 13]. Firstly, long term negative after effects of prohibited preparations' taking by sportsmen of this age are the most expressive than in completely formed organism. Secondly, sportsman-beginner, taking doping, actually deprives himself of further strategic perspectives in sports, because usual training means after taking doping will not give proper results. Thirdly, such facts extremely strongly influence on image of sports in public opinion. For example, in some kinds of sports coaches face parents' refusal to permit children to attend sport circles. They motivate it by opinion that in sport circle there is only "chemicals" and they do not want to kill their children's health [8]. Also quantity of cases of muscle pills'taking has increased for improvement of sportsmen's appearance and sometimes for increasing of workability. Authors note that industry of specialized eating adds for losing weight, different anti ageing and recreational "miracle herbs", body-building, fitness, extreme kinds of sports, which are popular among youth have become a powerful market for different doping [1, 2, 5, 8]. Millions of users, inspired with idea of quick transformation are risking their health. Sport is a part of society and reflects processes, which occur in human life. Problem of doping taking by sportsmen is closely connected with drug taking, which is widely spread especially among young people [9, 13, 19]. Social workers and psychologists are sure that model of "doping behavior", when a person solves problems with the help of injection or a tablet, is a direct way to model of "drug-taking behavior".

Thus, negative after-effects for athlete's health, especially junior sportsmen, violation of sports' moral principles and substantial harm to its image characterize sharpness of doping problem in sports.

This problem has not been solved completely from jurisdictional point of view, as far as legal system of punishment for drug taking both in international sports movement and in different countries either is not sufficiently effective, or is absent at all (legislations of some countries do not stipulate punishment for doping). The outlined problem is sharpened by the fact that certain category of people is, to some extent, connected with physical culture and sports, first of all for satisfaction of own demands pushes teenagers for doping taking or are drug pushers.

So, problem of struggle against involving of teenagers in drug (doping) taking is one of the most urgent not only in physical culture and sports but also in criminal science and legal practice both in Ukraine [13] and abroad [19].

Significant aspect of struggle against doping in sports is a pedagogic one, in which educational work is rather important [1, 2, 8, 17]. However this aspect was not paid proper attention to for long time. As on present time, in compliance with document of international sports movement working out and implementation of anti-doping educational programs is on one of main places, but in many countries it is on low level and effective practical and

technological solution of this problem is even practically absent. It is necessary to implement more actively educational programs of primary prophylaxis of drug (doping) taking in sports among Ukrainian youth, considering age heredity and, according to educational tasks, ensure social adaptation of junior sportsmen, their integration in sport environment. The program shall envisage not only preventive means in society but also means of struggle with sportsmen's violations of anti-doping rules.

Thus, doping is one of the most serious problems of modern sports and society in general and includes closely interconnected medical, jurisdictional, political, moral, organizational, social and pedagogic aspects. Effectiveness of struggle against doping in sports to large extent depends on system of its organization. However, it should be noted that organizational principles of struggle against doping were not practically paid attention to by scientists. Creation of anti-doping efficient system in Ukraine, which would ensure effective restriction and prevention from doping, requires solution of a number of tasks. It should be noted that there is a demand and objective pre-conditions for development and adopting of general conception, which would generalize the received data and serve as the basis for working out of effective anti-doping measures at the account of improvement of legislative and legal basis and infrastructure of Ukrainian anti-doping policy, which shall be brought in compliance with modern international standards.

#### Conclusions:

Among problems of modern sports problem of doping has been being more and more important. It is significantly complex as far as it includes interconnected medical, jurisdictional, political, moral, organizational, social and pedagogic aspects. Medical aspects are conditioned by the fact that using of doping by sportsmen results in negative and in a number of cases in mortal after effects. In this connection international sport and medical organizations for long period of time have been struggling against doping. However, this struggle does not bring desired results: doping using by sportsmen is continuing. The problem of doping has not been solved legally as well. The problem of doping has also a moral aspect. Using of doping preparations contradicts to essence of sport, creates unequal conditions for achieving of sport result, is harmful for image of country and team, for international sports in general. Problem of taking doping by sportsmen is closely connected with drug taking, which is widely spread among youth recent time. Substantial aspect in struggle against doping in sports is pedagogic one, with educational work as its important component. Analysis of literature showed that social-pedagogic factors of anti-doping policy in sports have not been regarded by domestic and foreign scientists in complex. Some aspects of anti-doping police, elucidated in scientific works, can be divided in two groups. The first group consists of works, in which doping in sports is regarded as social phenomenon (V.V. Stolbov 1987; Yu.A. Fomin, 1989; Ye.K. Goncharova, 1994; S.A. Oliynyk, 2005, V.M. Platonov, 2005, T.V. Mikhaylova, 2009; V.P. Korzh 2006 – 2010, Ye. Rachieva, 2010, I.M. Bashkin 2006 – 2011 et al.) The other group of works is devoted to problems of doping control. They are the works by A.G. Dembo (1984), V.A. Vasin (1999), V.V. Matova (2002); G.M. Rodchenkova (1990-2010), V.V. Balakhnichieva, S.N. Portugalova (2003).

The prospects of further researches imply searching of new anti-doping measures in sports.

#### References:

1. Badrak K.A. *Fizicheskaia kul'tura: vospitanie, obrazovanie, trenirovka* [Physical culture: upbringing, education, training], 2010, vol.1, pp. 70-72.
2. Badrak K.A. *Pervichnaia profilaktika primeneniia dopinga v sovremennom sporte* [Primary prevention of doping in sports today] *Obrazovatel'naia programma i metodicheskie rekomendacii* [Educational program and guidelines], Sankt Petersburg, 2011, 64 p.
3. Bal'sevich V.K. *Teoriia i praktika fizicheskoi kul'tury* [Theory and practice of physical culture], 2004, vol.3, pp. 29-30.
4. Barabanova V.B. *Uspekhi sovremennoego estestvoznaniia* [Successes contemporary science], 2010, vol.11, pp. 176-178.
5. Bashkin I.N. *Zhurnal SWIM* [Journal SWIM], 2012, vol.4(10), pp. 16-19.
6. Bordiugova N.V. *Chasopis Kiyivs'kogo universitetu prava* [Journal of Kiev University of Law], 2010, vol.1, pp. 291-295.
7. Bubka S.N. *Olimpijs'ka Arena* [Olympic Stadium], 2013, vol.6, pp. 21-23.
8. Grecov A.G. *Metodika antidopingovoi raboty s molodymi sportsmenami* [Technique of anti-doping work with young athletes], Sankt Petersburg, 2009, 48 p.
9. Eremeeva L.V. *Narkologiya* [Narcology], 2009, vol.8, pp. 98-99.
10. Zhuravleva A.I. *Lechebnaia fizkul'tura i sportivnaia medicina* [Exercise Therapy and Sports medicine], 2013, vol.10(118), pp. 3-8.
11. Korzh V.P., Bashkin I.N. *Doping. Vchera, segodnia, zavtra* [Doping. Yesterday, today and tomorrow], Nikolayev, 2006, 200 p.
12. Ostapenko L.V., Pavlov V.I., Bensmansur I.V. *Fizkul'tura v profilaktike, lechenii i rehabilitacii* [Training in the prevention, treatment and rehabilitation], 2009, vol.2, pp. 21-24.
13. Petrenko O.I. *Problemi pravoznavstva ta pravookhoronnoi diial'nosti* [Problems of law and law enforcement], Donetsk, 2004, vol.1, pp. 94-101.
14. Platonov V.N., Olejnik S.A., Gunina L.M. *Doping v sporte i problemy farmakologicheskogo obespecheniia podgotovki sportsmenov* [Doping in sport and pharmacological problems provide training athletes], Moscow, Soviet sport, 2010, 308 p.

15. Ratner A.B. *Teoriia i praktika fizicheskoi kul'tury* [Theory and practice of physical culture], 2001, vol.7, pp. 9-10.
16. Backhouse S.H., McKenna J. Doping in sport: a review of medical practitioners' knowledge, attitudes and beliefs. *International Journal of Drug Policy*, 2011, vol.22(3), pp. 198-202.
17. Bowers L.D. Science and the rules governing anti-doping violations. *Handbook of Experimental Pharmacology*, 2010, vol.195, pp. 513-531.
18. Johnson M.B. A systemic social-cognitive perspective on doping. *Psychology of Sport and Exercise*, 2012, vol.3(13), pp. 317-323.
19. Mc Namee M.J., Tarasti L. Juridical and ethical peculiarities in doping policy. *Journal of Medical Ethics*, 2010, vol.36(3), pp. 165-169.
20. Morente-Sánchez J., Zabala M. Doping in sport: a review of elite athletes' attitudes, beliefs, and knowledge. *Sports Medicine*, 2013, vol.43(6), pp. 395-411.

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