

Exploring changes in attitudes towards doping in sport in different groups of the Russian population: a mixed methods study with policy recommendations

Exploración de cambios en las actitudes hacia el dopaje en el deporte en distintos grupos de la población rusa: un estudio de métodos mixtos con recomendaciones normativas

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Abstract. Introduction: This article examines the evolution of anti-doping culture in Russia through a comparative analysis of sociological surveys conducted in 2019, 2020, and 2021. It focuses on the changing attitudes of Russian citizens towards doping in sports, their awareness of anti-doping regulations, and the underlying causes and motivations for violations of anti-doping rules. The significance of understanding public opinion on doping and countermeasures is highlighted, underscoring its value for specialists, researchers, and executive authorities in addressing and mitigating the issue. Materials and Methods: The study employed sociological surveys across various categories and groups within the Russian population, spanning three consecutive years. These surveys aimed to gather comprehensive insights into the public's perception of doping, knowledge of anti-doping efforts, and attitudes towards the effectiveness of existing anti-doping measures. The methodology was designed to enable a detailed comparative analysis, shedding light on trends and shifts in public opinion over time. Results: Findings from the surveys reveal a noticeable development in the anti-doping culture among the Russian population, marked by changes in attitudes towards doping use and a growing awareness of anti-doping rules. The research identified specific causes and motives behind anti-doping rule violations, illustrating the complex nature of the issue. Additionally, the study provided an objective assessment of the problem's scale, based on the attitudes of various social groups towards the use of banned substances, whether of natural, narcotic, or synthetic origin. Conclusions: The paper concludes with up-to-date data on the anti-doping situation in the Russian Federation and perspectives from scientists on enhancing anti-doping efforts. Based on the analysis, the authors propose a set of measures aimed at improving anti-doping activities in Russia. These recommendations are intended to bolster the fight against doping, reflecting the study's contribution to forming a comprehensive understanding of societal attitudes towards this challenge and paving the way for more effective countermeasures.

Keywords: doping, sports, anti-doping rules, anti-doping measures, anti-doping culture, attitudes toward doping in sports, opinion poll.

Resumen. Introducción: Este artículo examina la evolución de la cultura antidopaje en Rusia a través de un análisis comparativo de encuestas sociológicas realizadas en 2019, 2020 y 2021. Se enfoca en los cambiantes actitudes de los ciudadanos rusos hacia el dopaje en los deportes, su conciencia sobre las regulaciones antidopaje, y las causas y motivaciones subyacentes para las violaciones de las reglas antidopaje. Se destaca la importancia de entender la opinión pública sobre el dopaje y las contramedidas, subrayando su valor para especialistas, investigadores y autoridades ejecutivas en abordar y mitigar el problema. Materiales y Métodos: El estudio empleó encuestas sociológicas en varias categorías y grupos dentro de la población rusa, abarcando tres años consecutivos. Estas encuestas tenían como objetivo recopilar información comprensiva sobre la percepción pública del dopaje, conocimiento de los esfuerzos antidopaje y actitudes hacia la efectividad de las medidas antidopaje existentes. La metodología fue diseñada para permitir un análisis comparativo detallado, arrojando luz sobre tendencias y cambios en la opinión pública a lo largo del tiempo. Resultados: Los hallazgos de las encuestas revelan un desarrollo notable en la cultura antidopaje entre la población rusa, marcado por cambios en las actitudes hacia el uso de dopaje y una creciente conciencia de las reglas antidopaje. La investigación identificó causas y motivos específicos detrás de las violaciones de las reglas antidopaje, ilustrando la compleja naturaleza del problema. Además, el estudio proporcionó una evaluación objetiva de la escala del problema, basada en las actitudes de varios grupos sociales hacia el uso de sustancias prohibidas, ya sean de origen natural, narcótico o sintético. Conclusiones: El documento concluye con datos actualizados sobre la situación antidopaje en la Federación Rusa y perspectivas de científicos sobre la mejora de los esfuerzos antidopaje. Basado en el análisis, los autores proponen un conjunto de medidas destinadas a mejorar las actividades antidopaje en Rusia. Estas recomendaciones tienen como objetivo reforzar la lucha contra el dopaje, reflejando la contribución del estudio a formar una comprensión comprensiva de las actitudes sociales hacia este desafío y allanando el camino para contramedidas más efectivas.

Palabras clave: dopaje, deporte, normas antidopaje, medidas antidopaje, cultura antidopaje, actitudes hacia el dopaje en el deporte, encuesta de opinión.

Fecha recepción: 06-07-22. Fecha de aceptación: 28-06-24

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Introduction

Doping in sports represents a complex and multifaceted challenge that severely undermines the integrity of competitive athletics, casting a shadow over athletes, the broader sporting community, and its global audience (Bojkova et al. 2023). This issue transcends the mere act of doping, encompassing its widespread prevalence, the significant impact on athletes' careers (Stukova et al. 2023), and the diverse attitudes towards it across various domains and social

groups (Babaskin et al. 2024). In today's society, doping has evolved into a pervasive social dilemma, reflecting the deep penetration of professional sport into the fabric of society, where the knowledge of substances with stimulating effects on the body is widespread. The challenge of doping in sports is vast and pervasive, affecting nearly every level of competition, from grassroots amateurs to professional athletes at the pinnacle of their careers. The World Anti-Doping Agency (WADA) tirelessly updates its prohibited list and combats doping with a plethora of measures, yet the

issue remains stubbornly persistent. The health risks posed by doping are profound, not only endangering the well-being of athletes but also casting doubts on the fairness and integrity of sporting competitions on a global scale.

The prevalence of doping is alarmingly varied, with reported rates fluctuating from single-digit percentages in certain sports to much more concerning figures in others, as evidenced by studies (Balk et al., 2023; Varfolomeeva, Kozyreva & Beresneva, 2023). The clandestine nature of doping practices, coupled with the continuous evolution of performance-enhancing substances and methods, presents a significant challenge to accurate assessment and detection. Nonetheless, the admissions of doping by athletes through confidential surveys offer a glimpse into the widespread nature of this issue (Nicholls et al., 2020).

Society's stance on the utilization of doping agents in various spheres is characterized by a marked ambivalence: whereas some contexts may find the justification and moral acceptance of doping, others deem it utterly unacceptable and immoral. As society progresses in the realms of physical culture and sports, the state embarks on critical missions, among which improving the anti-doping system stands as a paramount task (Government of the Russian Federation, 2014, 2020; State Duma of the Federal Assembly of the Russian Federation, 2007). It is recognized that the advancement of the anti-doping system should be realized through fostering a negative perception of doping in sports amongst citizens and cultivating among elite athletes an awareness of doping's harms and the paramount importance of fair competition, devoid of banned substances.

This growing concern underscores the need to study the problem of doping in sports from different angles. A thorough understanding of doping's prevalence, its detrimental impact on athletes' careers, and the array of attitudes towards it is essential for crafting effective anti-doping policies and educational initiatives aimed at eradicating this blight from the sporting world. This study focuses on various categories and groups within the Russian population, examining their attitudes towards doping in sports and the ongoing efforts to enhance the fight against it.

The primary objective of the study is to assess changes in public attitudes toward doping in sports and measures to counteract it in order to identify the main areas for the improvement of anti-doping measures.

Methods

This mixed methods study commenced with a cross-sectional survey conducted at three distinct time points to assess changes in attitudes toward doping in sports among various population groups within Russia. This design enabled the capture of temporal shifts in perceptions and the identification of factors influencing these attitudes over time.

Empirical methods are represented by the quantitative method (the method of sociological survey of different groups of population on the basis of the formed research sample with the use of CATI, CAPI, CAWI technologies).

The qualitative methods used are interviews with representatives of sports personnel. The study targeted a diverse demographic, encompassing athletes, coaches, sports enthusiasts, and the general populace, segmented by age, gender, sport discipline, and geographical location within Russia. A stratified sampling technique was employed to ensure representativeness across these categories, with sample sizes determined based on the proportion of each group within the population.

Semi-structured interviews were conducted, guided by an interview protocol that included open-ended questions and prompts to explore participants' experiences with doping, awareness, and perspectives on anti-doping measures, and the cultural context of doping within their sports. Interviews were conducted face-to-face or via secure online platforms, depending on the participants' preferences and geographical locations.

All study participants were provided with information sheets detailing the study's purpose, their involvement, and the confidentiality of their responses. Informed consent was obtained prior to participation. The study received approval from an Institutional Review Board, ensuring adherence to ethical standards in research.

Results

Comparative analysis of the results of sociological surveys on the attitude of the population to doping in sports and measures to counteract it administered in 2019, 2020, and 2021 reveals certain dynamics in some indicators. First of all, there are changes in citizens' understanding of what doping is. In 2019 and 2020, Russian citizens most often understood doping as the use of any pharmacological drugs, while the results of the 2021 survey reveal a decrease in the number of people who hold this opinion with more than half of citizens (61%) starting to define doping as banned drugs used for the purpose of improving physical fitness. Meanwhile, Russian legislation establishes that doping in sports means the violation of anti-doping rules, which provide a list of substances whose use or attempted use is prohibited. The List of Prohibited Substances adopted by the World Anti-Doping Code includes substances and agents that can affect performance (World Anti-Doping Agency 2015, 2020, 2021).

Analysis of awareness of anti-doping rules shows that in 2021, public awareness of anti-doping rules also increased. Specifically, in 2020, 4% of students of educational institutions of general and higher education regularly engaging in physical education and sports, including those studying physical education and sports programs, name all anti-doping rules; in 2021, 7% of students named all the rules; in 2021, at least one rule was named by 78% of respondents, and in 2020 – by 73%. In addition, the proportion of high-caliber athletes who are aware of anti-doping rules increases each year. For example, in 2021, 97% of respondents cited at least one action related to an anti-doping rule violation, which shows a 24% increase from 2020. In view of the

above, it can be noted that awareness of doping has increased, and it can be assumed that the citizens of the Russian Federation have become more knowledgeable about doping in sports.

From year to year, there is a decrease in the proportion of representatives of sports doctors and personnel who rather agree with the admissibility of doping in elite sports. From 2019 to 2021, the proportion of such responses decreased by 15% to 2%. At the same time, a slight reduction is found in the share of citizens who note that international sports organizations are overly focused on the problem of doping in sports and that the media make the problem of doping look more prevalent than it really is, the role of doping being greatly exaggerated overall.

As a positive change, we should note a reduction in the share of respondents agreeing that doping is a justified risk and that the health consequences of using banned drugs and practices (doping) in sport are greatly exaggerated (Figure 1).

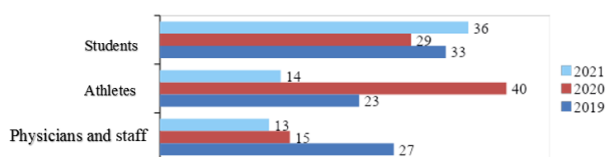


Figure 1. Distribution of respondents agreeing with the statement that doping is a justified

That said, it should be noted that among sports physicians and sports personnel, the proportion of those who believe that even if an athlete did use doping, their victory at a competition is deserved has decreased by 22% in 2021 compared to 2019, reaching 6%.

In the study of public attitudes towards doping in sports in the Russian Federation, respondents were asked to consider third-party statements about doping in sports and select the options that most accurately characterize their point of view. Analysis of the results obtained demonstrates that the majority of respondents totally disagree with the statements related to positive attitudes towards doping. Such changes indicate the effectiveness of advocacy for the inadmissibility of doping in sports on the territory of the Russian Federation.

A shift in priorities can be noted based on the analysis of respondents' views on the factors that affect performance. In the 2020 survey, 50% of adults say that the greatest influence on victory comes from the work of the coach, and the physical health of the athlete before the competition is mentioned only by 40% of respondents (Figure 2). In 2021, more than 50% (56.3%) of adult citizens note that it is the physical health of the athlete before a competition that is crucial, and the quality of the coach's work is pointed out by 39%. The importance of the athlete's physical health is also emphasized by the majority of students of educational organizations regularly engaged in physical education and sports (67.2% in 2021 and 65% in 2020).

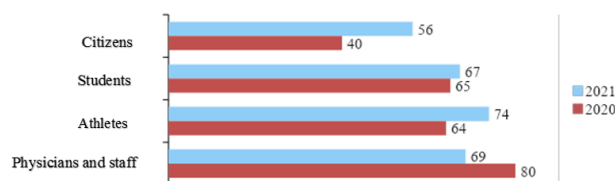


Figure 2. Distribution of respondents believing that the physical health of the athlete before the competition is of utmost importance

Certain changes in the perception of the athlete's emotional and psychological state before competition as the factors that affect victory are observed among students (57.4% in 2021 and 55% in 2020) and high-class athletes (75.8% in 2021 and 73.9% in 2020). Thus, the vast majority of respondents identify the physical, emotional, and psychological state of the athlete before performance as the main factors influencing victory in sports competitions.

Analysis of information sources about doping in sports reveals that Internet materials are the most popular among respondents. Notably, the popularity of this source of information increases every year. At the same time, the specifics of the demand for this type of information source vary across the categories and groups of respondents. For example, high-class athletes resort to the websites of anti-doping agencies and the Anti-Doping PRO application, while representatives of sports physicians and sports personnel use in their work the materials of the Center for Sports Medicine of FMBA of Russia in addition to the materials of anti-doping agencies. However, the share of respondents resorting to RUSADA materials is the largest and is constantly growing. A 27% rise in the popularity of this source is observed in 2020 compared to 2019 (30%) and a 16.2% increase is detected in 2021 (73.2%).

Another noteworthy finding is the lowering of the popularity of such information sources as materials provided by the Ministry of Sports (or other authorities) and the All-Russian Sports Federation (Ministry of Sports of the Russian Federation 2020, 2021). The materials of the Ministry of Sports (or other authorities) are used by the least number of sports personnel. However, their share increases by almost 15% in 2021 compared with 2019 (from 13% to 27.6%). Meanwhile, the 2021 poll shows the number of sports personnel who do not use such materials being almost half of that in 2019, 3.9%, and such information sources as pharmacists, general practitioners, and the website of the All-Russian Sports Federation continue to lose relevance.

In this light, there is a need to promote an anti-doping culture among all categories and groups of the population using the opportunities to spread information through popular information sources.

The main motive for anti-doping rule violations noted by all respondents is the athlete's desire to achieve high athletic performance (Figure 3).

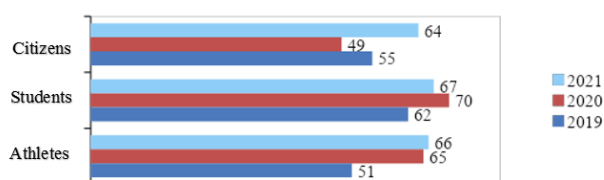


Figure 3. Distribution of respondents believing that the desire to achieve high performance is the main motive for anti-doping rule violations.

In the meantime, there is an annual growth of the percentage of those believing that an incentive to use doping can be the example of other athletes doing so. Specifically, among students, this opinion was shared by 18% in 2019 and as much as 30.4% in 2021, while in adults, the prevalence of this view reached 48.8%, a 29.8% rise compared to 2020 (19%). The orders of coaches, on the contrary, play less and less of a role in encouraging athletes to violate anti-doping rules. A decline is also detected in the percentage of respondents choosing “doctor’s orders” as a motive to violate anti-doping rules.

Among the reasons for violations the respondents also note insufficient control on the part of coaches and physicians. However, the share of adults agreeing with this statement decreased insignificantly in the three years: in 2019, it was 31%, in 2020 – 27%, and in 2021 – 28.1%. A different trend with respect to this answer option is found in high-class athletes, as 25.3% of them agreed with this statement in 2021, 8.3% more than in 2019. Students also note this answer option: 24% in 2019, 32% in 2020, and 25.2% in 2021.

The leading reason for violations of anti-doping rules in the respondents’ answers is athletes’ poor physical fitness. The share of adults believing this to be the main reason for violations almost doubled, reaching 25.4% in 2021, which is 12.4% more than in 2019 and 13.4% more than in 2020. Among sports personnel, the popularity of this reason grew by 10.6% (from 13% in 2020 to 23.6% in 2021). However, the rate of this explanation has notably reduced in high-class athletes, the proportion of respondents picking this reason in 2021 being 19.8%, a decrease of 11.2% from 2020 and 7.2% from 2019.

Furthermore, approximately every fifth adult citizen in 2021, as in previous years, believes that the reason for anti-doping rule violations is athletes’ poor knowledge about prohibited drugs and methods. At the same time, among the respondents in this group, there is an intensive rise in the share of those convinced that the main reason is public indifference to the problem. In 2019 and 2020, they were not more than 5%, and in 2021 – 14.2%.

In this case, it is advisable to actively spread information on anti-doping by means of its coverage in appropriate mobile applications, on the Internet, in mass media, as well as in places of high concentration of people.

According to the majority of the surveyed citizens of the Russian Federation, it is Russian athletes themselves who should be held responsible for the use of doping in the first place. In 2021, 66.2% of adult citizens were of this opinion,

which is 10.2% more than in 2020. The same position is held by students (56% of respondents in 2019, 63% in 2020, and 61.8% in 2021) and athletes themselves (86.7% in 2021, 59% in 2020, 47% in 2019). This statement is supported by the majority of sports personnel, and this share is rising every year. Specifically, in 2019, this view was held by 70%, in 2020 the proportion increased by 9% up to 79% of those surveyed, and in 2021, it rose by 12.3%, reaching 91.3%.

The survey respondents also argue that the responsibility for doping should fall on the coaches and doctors of athletes, with the rate of this statement growing annually. In 2019, the portion of sports staff believing that coaches should be held responsible was 50%, in 2020, it added 7%, reaching 57%, and in 2021 – reduced by 13.7%, down to 43.3%. A 5.1% decline in the popularity of this opinion is also found in 2021 in adult citizens (compared to 2020, the share of those who chose the considered option was 40.9%).

In 2021, as in 2020, adult citizens, students, and high-level athletes recognize as the main measures to reduce anti-doping rule violations in Russia increased monitoring of athletes and stricter penalties for doping use. Specifically, 32.6% of adult citizens note that doping controls were strengthened in 2021, compared to 10% in 2019 and 14% in 2020.

Stricter control by state agencies is identified as a necessary measure in 2021 by 17.2% of adult citizens, up 14.2% from 2019 and 9.2% from 2020. Overall, 74.2% of respondents favor anti-doping enforcement in 2021, 52% in 2019, and 59% in 2020.

Stricter penalties for doping in 2021 are proposed by 22.3% of high-class athletes, an increase of 8.3% compared with last year. Among representatives of sports personnel, the rate of this answer option has not changed in 2020 compared to 2019, amounting to 40%, while in 2021, there is a slight decrease – by 0.6%. In 2021, same as in 2020, this measure is seen as a priority by 29% of adult citizens surveyed, which is somewhat more than in 2019 – by 5%.

In addition, representatives of sports medicine (team doctors) and sports personnel consider the strengthening of anti-doping propaganda in educational work with Russian citizens and through the media to be the most effective means of combating doping in sports. This measure is supported by the largest number of respondents – their share increased by 7% in 2020 (from 43% in 2019 to 50% in 2020) and slightly decreased by 0.96% in 2021, amounting to 49%. Thus, the presented analysis of the respondents’ opinions on the responsibility for the use of doping by Russian athletes and on measures to reduce violations of anti-doping rules in Russia emphasizes the objective need for appropriate measures aimed at eradicating anti-doping violations in sport.

Discussion

The pervasive issue of doping in sports transcends the

boundaries of professional athletics, seeping into the amateur levels and emerging as a significant public health concern (García-Grimau, Casado, & de la Vega, 2021). Despite the widespread acknowledgment of this problem, the current punitive measures against doping have proven insufficiently deterrent, underscoring the pressing necessity for preemptive anti-doping education and intervention strategies (Spica & Fara, 2019). Initiating such preventive measures from a young age could play a crucial role in the social adaptation of budding athletes and their seamless integration into an ethical sports culture (Akishina et al. 2023).

In the realm of legal frameworks and policy, the anti-doping policy of Russia serves as a pivotal reference point (Khabibrakhmanova et al. 2024), necessitating alignment with international standards as set forth by the Council of Europe (1989), UNESCO (2005), and supplemented by recent scholarly insights (Sysoeva & Sednev, 2019). Despite existing regulations that ostensibly cover the gamut of anti-doping measures, the protracted history of doping scandals within the country vividly illustrates the shortcomings of the Russian anti-doping laws, highlighting their misalignment with global practices and the dynamic nature of sports ethics and governance (Korniukhin & Vilkov, 2020; Ministry of Sports of the Russian Federation, 2021).

The essence of combating doping lies not only in punitive actions but fundamentally in education and understanding of what constitutes doping and the principles guiding its prohibition. This knowledge, as posited by Zavalishina (2019), holds the potential to eradicate doping scandals. This necessitates a discourse on enhancing restrictions and bolstering oversight within anti-doping frameworks, ensuring that measures resonate with the unique pressures faced by athletes. These pressures, unparalleled in intensity across both physical and psycho-emotional dimensions, necessitate a nuanced approach to anti-doping strategies (Volkova et al., 2019; Zavalishina, 2019).

The advocacy for "the spirit of sport" and the cultivation of a doping-free sports ethos could benefit significantly from opinion polls within the anti-doping domain. Such initiatives could facilitate the identification and implementation of effective communication strategies and intervention tools tailored to the diverse stakeholders within the sports community (Vdovina, 2021; Lipicer, & Mc Ardle, 2014).

Moreover, the medical ramifications of doping underscore the imperative for athletes, coaches, and medical professionals in the sports field to possess a thorough understanding of the health risks associated with the use of prohibited substances. This medical perspective is critical in informing and bolstering anti-doping efforts (Isidori et al., 2020; Kholopov & Sumina, 2017; Volkova et al., 2019; Diel & Zehner, 2021; Heuberger et al., 2022; Stoll et al., 2020).

The dissemination of information regarding major doping cases, while potentially undermining public trust in the integrity of the sporting world, also presents an opportunity. Athletes can play a pivotal role in championing the

ideals of fair play and integrity, thus mitigating the adverse effects of negative publicity on the perception of sports. This dual-edged scenario reflects the complex interplay between public perception, media coverage of doping incidents, and the overarching goal of fostering a culture of fairness and ethical competition in sports (Otto et al., 2021).

Addressing the challenge of doping in sports necessitates a comprehensive approach that combines legal reform, education, enhanced monitoring, and community engagement. By fostering a deep-seated understanding and appreciation of ethical sportsmanship among all stakeholders, the fight against doping can progress toward more effective prevention, detection, and intervention strategies, ensuring the integrity and health of athletes and the sporting community at large.

Conclusion

In the course of this study, we analyzed the results of sociological surveys conducted in 2019, 2020, and 2021 on the attitude of various categories and groups of the Russian population toward doping in sports and measures to counter it. The findings emphasize the objective need to take appropriate measures aimed at eradicating anti-doping violations in sports.

Having analyzed the primary results of sociological surveys, we can note that in general, the public's knowledge about doping in sports has changed over the past year. Russian citizens have become more informed about doping in sports, and the level of anti-doping culture among the population is improving, which should undoubtedly contribute to the reduction of the number of anti-doping violations.

Thus, it is found that in order to eradicate the violations of anti-doping rules in the Russian Federation, it is paramount to strengthen advocacy by means of the opportunities to spread information through popular information sources and covering relevant information in mobile applications, on the Internet, in mass media, as well as in crowded places. Furthermore, an expedient measure is to organize public education through educational anti-doping programs, which could fully disclose the directions of the state policy in the field of anti-doping.

The practical significance of the study consists in the possibility of applying its results in the development of measures to improve anti-doping activities in sports in the Russian Federation.

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