



## Bioethics in Sport

### Bioetika v športu

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#### Abstract

Whether recreational or professional, sport is an integral part of human life, so its daily impact on society is undeniable. It is, therefore, important to recognise the role of moral values and ethics in sport, which can help to ensure fairness and preserve the integrity of professional sports. In recent years, there has been a growing awareness of the importance of implementing these values in professional sport, as it is crucial to enable physical performance without compromising the very essence of sport. However, using prohibited substances and methods in professional sports today has become an increasingly worrying ethical issue, particularly in sports medicine. The primary aim of sports science, especially sports physiology, is to help athletes improve their performance and prevent and overcome injuries, while the primary goal of sports management and some athletes is often to win, which can lead to unethical means to achieve this goal. This behaviour raises many ethical doubts and highlights the need for a framework to address these contemporary challenges increasingly facing professional sport today. Bioethics can effectively address these challenges by examining medical and scientific advances' ethical, social, moral, and legal implications. By considering the values, principles, and norms underlying medical and scientific practices, bioethics in the context of sport can provide guidance and recommendations for bioethical decision-making concerning (bio)ethical doubts or controversies that may arise, such as the use of performance-enhancing drugs, non-therapeutic use of gene therapy and ethical considerations related to using new technologies. This paper, therefore, aims to emphasise the importance of bioethics as a bridging science in sport in the context of the (bio)ethical challenges that increasingly characterise the professional practice of sport today.

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**Key words:** bioethics; ethical issues; medicine; professional athletes; sport

**Ključne besede:** bioetika; etična vprašanja; zdravilo; profesionalni športniki; šport

**Received / Prispelo:** 18. 6. 2023 | **Accepted / Sprejeto:** 3. 5. 2024

**Cite as / Citirajte kot:** Slivšek G, Mijač S, Brstilo-Čičković M, Brstilo N, Karić M, Lončarek K, et al. Bioethics in Sport. *Zdrav Vestn.* 2024;93(7-8):260–71. **DOI:** <https://doi.org/10.6016/ZdravVestn.3465>



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## Izvleček

Rekreativni ali profesionalni šport je sestavni del človekovega življenja, zaradi česar je njegov vsakodnevni vpliv v družbi nesporen. Zato je pomembno opredeliti vlogo moralnih vrednot in etike v športu, ki lahko pomagajo zagotoviti pravičnost in ohraniti integriteto profesionalnega športa. V zadnjih letih se vse bolj zavedamo pomena uveljavljanja teh vrednot v profesionalnem športu, saj je ključnega pomena, da se sicer zagotovi telesna zmogljivost, ne pa da se pri tem ogroža samo bistvo športa. Uporaba prepovedanih snovi in metod v profesionalnem športu je danes vse bolj zaskrbljujoče etično vprašanje, zlasti na področju športne medicine. Glavni cilj športne znanosti, predvsem športne fiziologije, je pomagati športnikom izboljšati njihovo zmogljivost ter preprečevati in obvladovati poškodbe. Ob tem pa je glavni cilj športnega menedžmenta in nekaterih športnikov večinoma zmagati, kar lahko vodi do uporabe neetičnih sredstev, da se cilj doseže. Takšno ravnanje sproži veliko etičnih pomislekov in poudarja potrebo po orodju za premaganje teh sodobnih izzivov, s katerimi se danes pogosto sooča profesionalni šport. Bioetika lahko obvladuje tovrstne izzive tako, da preuči etične, družbene, moralne in pravne posledice, ki jih nudi napredek znanosti, zlasti medicine. Z upoštevanjem vrednot, načel in norm, na katerih temeljijo medicinske in znanstvene prakse, lahko bioetika v okviru športa zagotovi smernice in priporočila za bioetično odločanje, povezano z bioetičnimi dvomi ali spornostjo, ki se lahko pojavijo pri uporabi zdravil za izboljšanje zmogljivosti, neterapevtski uporabi genskega zdravljenja in uporabi novih tehnologij. Članek ima torej za cilj poudarjati pomen bioetike kot povezovalne znanosti v športu v okviru bioetičnih izzivov, ki so danes vse bolj in bolj značilni za vključevanje posameznih strok v športno dejavnost.

## 1 Introduction

It is generally believed that sports can develop many virtues in people, such as perseverance, discipline, healthy living habits and teamwork. Accordingly, children are encouraged to participate in sports early to develop these qualities (1). The National Olympic Committee, as the governing body of Olympic sport in each country, promotes sport as an essential element for the well-being of individuals and society through the Sport for All movement. It encourages everyone, regardless of age, sex, ability, or religion, to participate in sports and enjoy its physical, mental and social benefits (2). When it comes to sports, however, a distinction must be made between two types: Recreational sport and professional sport (3). Recreational sports are primarily about participation and enjoyment, which can lead to improved physical activity, fun and social interaction. These activities are usually practised voluntarily and are not associated with financial compensation or labour rights. In professional sports, on the other hand, athletes are paid for their performance. Therefore, it is considered a profession, and athletes are entitled to labour rights. In professional sports, the focus is often more on competition and peak performance than on pure participation and enjoyment, which, globally speaking, is actually part of every job (4). Both forms of sport play an important role in society and can bring a range of benefits to the individual and the community.

This paper will deal specifically with the latter and examine the ethical considerations in the context of professional sport. These concerns are of paramount importance as professional sport has a significant impact on

society, culture, the economy, and the individual. It is, therefore, essential to consider the moral and ethical dimensions of professional sports, including the behaviour of athletes, coaches, biomedical professionals, and other stakeholders involved in professional sports (1). In this way, it can gain a deeper understanding of the complex issues involved and work towards promoting fairness, safety, and respect for athletes, their audiences and, finally, society as a whole. The frequent unseemly events that have afflicted the world of professional sports in recent years suggest that it can also lead to various ethical doubts (5). Thus, the question arises whether the virtues associated with the sport are determined and whether the corrupting side of professional sport threatens its ability to deepen the moral life of human beings (3). It is also evident that the consequences of contemporary life are increasingly reflected in professional sports (6), leading to strong doubts about what can be a solution to correcting the consequences of a morally unhealthy society and, thus, what athletes are taught in ethics (5). In addition to the well-raised issues of the need for ethical action and questioning athletes about the (un)ethics of professional sport, it is encouraging that above all the benefits, the athlete's result is often the leading and most important factor in the pursuit of professional sport, and at the same time an intense driving force (7). Whether recreational or professional, sport is an integral part of human life, so its daily impact on society is undeniable. The world of professional sports has a strong message for the individual. The fame and influence of athletes can shape the world around them. Therefore, athletes have a

greater responsibility to communicate to the public the importance of physical activity through recreation that is associated with a healthy lifestyle (8). This message should be based on ethical and moral values so that people realise the true nature of sports. Today, sports send a strong message about the importance of physical activity as a means of improving overall health and well-being (2). It is therefore important to recognise the role of moral values and ethics in sport, which can help to ensure fairness and preserve the integrity of professional sport (9). In recent years, there has been a growing awareness of the importance of implementing these values in professional sports, as it is crucial to enable physical performance without compromising the very essence of sport (10). However, using prohibited substances and methods in professional sports today has become an increasingly worrying ethical issue, particularly in sports medicine (11). Many other serious problems are also evident in professional sports today, from secretly taking money or other rewards, colluding to win, buying and selling athletes at extremely high prices, dominating certain sports just for profit, insults, abuse, and even violence by fans (6). Using performance-enhancing drugs (PEDs), certain procedures, or even non-therapeutic use of gene therapy (under the common name sports doping) to achieve better sports performance violates bioethics' fundamental principles of beneficence, non-maleficence, autonomy, and justice. These principles also form the basis of athletic competition (12). However, athletes sometimes make decisions that contradict these principles. For example, they may train despite a justified ban by biomedical professionals or return to the game before the necessary recovery period has ended. They may also use substances known to harm themselves, their colleagues, and the environment to pursue better sports performance. All of these actions are contrary to the principles of bioethics that should guide ethical behaviour in sports (1). In the same way, the position of unfair advantage over other athletes, which allows them to use performance-enhancing drugs, is a serious moral or rather ethical problem in sport and society, but also a legal one, especially in professional sports (13). In response to a major doping scandal that rocked the world of professional cycling in 1998, the World Anti-doping Agency (WADA) was founded in 1999. The World Anti-doping Agency is a global organisation that joins forces to prevent using prohibited substances and methods in sports. Its main objective is to create and synchronise anti-doping regulations and protocols for all nations and sports (14), which further proves that cheating in sport is unethical, immoral, and comparable to cheating in the

business world, because for many athletes professional sport is their livelihood. The message that athletes send to the world through professional sports is too strong to tolerate such behaviour. At the same time, the use of prohibited substances or methods puts competitors at an unfair disadvantage (15). In contrast, if someone famous, such as a musician, were to take beta blockers to enhance their performance, such behaviour would probably be overlooked as it is not an element of competition and performance-enhancing drugs are therefore not normally tested in the music industry (16).

The cause of all this may lie in the increasing development of narcissistic culture, which aims to turn the human body into an object of admiration. Therefore, taking performance-enhancing drugs to achieve better sports performance has become widespread because the human body adapts to fit the framework of the current movement (17). However, the use of performance-enhancing drugs to improve one's performance has a long history in human civilisation. Over 5,000 years ago in ancient China, Ma Huang, an ephedra extract was used to suppress coughs and stimulate circulation, ultimately enhancing performance. Furthermore, historical accounts from antiquity indicate that some performance-enhancing drugs were also used at some point in Olympic competitions (18). In the recent past, the use of performance-enhancing drugs was institutionalised in the German Democratic Republic because the communist regime ordered the use of performance-enhancing drugs to promote the idea of a healthy and robust society, often without the knowledge or consent of the athletes (19,20). Other problems are the inability to determine and recognise ethical doubts in professional sport and how to resolve them efficiently and systematically (21). The problem of moral doubt occurs when the athlete does not know how to place the problem within the framework of social values, ethical assumptions, principles, and rules. This doubt is due to several ethical approaches and the problem of a moral predicament when the athlete knows how to analyse problems within the framework of values, assumptions and principles but is prevented from doing so not by his will (15). Ethical doubt in sports is almost as old as the sport itself. Research shows that it is easier for individuals to lose themselves by arrogantly approaching a problem than to try to solve it through the rules and principles that sports ethics dictate (3). This paper, therefore, aims to emphasise the importance of bioethics as a bridging science in sport in the context of the (bio)ethical challenges that increasingly characterise the professional practice of sport today.

## 2 Sports ethics

One of the most important aspects of physical activity is usually aimed at improving health, preventing disease, filling leisure time, relaxing and socialising. Accordingly, the World Health Organisation recommends that children under five years of age participate in at least 180 minutes of various physical activities daily. Children and adolescents aged five to 17 should engage in at least 60 minutes of moderate to vigorous physical activity daily, while those over 18 years should engage in at least 150 to 300 minutes of moderate physical activity or at least 75 to 150 minutes of vigorous physical activity daily (22). In line with this are the Slovenian guidelines for physical activity in children and adolescents in the age group 2–18 years, which state that children and adolescents should be moderate to vigorously physically active for at least 60 minutes every day of the week (23). However, when it comes to professional sports, the importance of physical activity is primarily from the point of view of competition, one can also say rivalry (24). People who practise sport exclusively for physical exercise and relaxation, or better said, practise a particular sport without extraordinary effort and a considerable investment of time, or whose business life does not depend on the sport (recreational sport), find it an opportunity to develop their physical, emotional and mental abilities (21). In contrast, the pressure to win has an entirely different effect on high-performance athletes in professional sports. By winning, one becomes the centre of attention for many teammates, compatriots, or even the world. Through their progress, top athletes become people of some importance in society, reaching areas that others may not be able to go to because they have access to so-called fame and fortune, so winning not only indicates being filled with fame but also being the best (3). These expectations of victory can tempt an athlete to cheat on the way to success or in an endeavour to maintain the position secured by that success. Athletes try to improve their performance in various ways, mainly through improvements in training procedures and the use of permitted substances, and only then do some of them also resort to illegal aids (25). Illegal aids include using performance-enhancing drugs or often so-called ergogenic agents, certain nutritional supplements and certain medications, the use of banned substances or procedures, and performances that are often one step ahead of the usual doping control procedures (26).

Human coexistence in society is influenced by intelligible or unambiguous guidelines indicating what is good or bad, derived from what is determined by

morality, the meaning of which comes from the Latin *moris* — behaviour (12), which is defined as a transparent system of first-order beliefs, actions and judgments about what is appropriate or inappropriate in culture, society or community, which indicates whether the actions of individuals can be classified as good or bad. Accordingly, ethics is the conscious actions of people who evaluate what is done and what is not done due to negligence or lack of ethical criteria (1). Sports ethics is a philosophical discipline that deals with the moral issues and problems in sports and athletic pursuits (27). Essentially, it is a constructive principle that guides human behaviour in sport and is described as a set of guidelines to promote and maintain healthy sporting practices (3). It encompasses more than just specific behaviours but also a certain mindset. Sports ethics deals with topics such as trustworthiness, respect, responsibility, fairness, integrity, caring, and citizenship, as well as the ethical obligations of all those involved in sport, or rather, sportsmanship and gamesmanship (28). Consistency in winning with honour, maintaining integrity, following the letter and spirit of the rules, and avoiding deceitful behaviour are all aspects of trustworthiness. Respect in sports means honouring traditions and treating teammates with dignity, avoiding disrespectful behaviour such as name-calling and inappropriate celebration, and showing grace in both victories and defeats (29). Responsibility on and off the field means being a positive role model, protecting health, and knowing which substances are safe to use. At the same time, education on anti-doping issues and compliance with anti-doping guidelines are also essential. Fairness requires adherence to high standards that ensure teams and athletes follow the rules and treat others equally, while unfair advantage goes against the spirit and integrity of the sport (15). Integrity is closely linked to fairness and is essential to maintaining the spirit of sport, as honesty and ethical behaviour are paramount, and cheating or breaking the rules is unacceptable. Caring means being a responsible and caring team player who looks out for others, avoids careless behaviour that could harm everyone, promotes healthy choices among teammates, reports unsafe behaviour and does not tolerate dangerous behaviour from teammates (6). Citizenship in sport means following the rules and resisting the temptation to circumvent them to gain an advantage, and respecting the spirit of the rules is essential to maintaining fairness and integrity in sport (30). These pillars form the basis for sportsmanship campaigns that strive for an honourable victory and, as such, represent the very principles of sports ethics (29).

One idea, science derived from ethics, is bioethics, which is the systematic study of human behaviour in the field of life sciences and, above all, in the field of biomedicine, examined in the light of values and moral principles. Bioethics encompasses the relationship between human nature and the living world that surrounds humans, intending to shape behaviour to ensure the social well-being of present and future generations (3). By bridging the social sciences and the life sciences, bioethics deals with ethical issues related to health, including those arising from advances in biology, medicine, and technology (31,32), which makes sport a bioethical topic, as it affects life, health and quality of life in many ways, both for those who practise it and those with whom sport is directly or indirectly associated (33). The fact that various biomedical professionals are also involved in sport, to which bioethics as a philosophical discipline is linked, should also be considered. At the same time, it should not be forgotten that the progress of medical and biotechnological sciences finds its platform and space for applications and various possible temptations in sports (33,34).

### 3 Bioethics and sport

Bioethics (Greek βίος – life + ἦθος – behaviour) is a bridging science between ethics as a social science and the science of life, whose multi-scientific character consists in the fact that it is anchored in various sciences and thus forms a unique combination of medicine, humanities, philosophy, economics, politics, and law (35). Accordingly, in bioethics, the concept of medical ethics was described in 1803 in the book *Medical Ethics; or a Code of Institutes and Precepts Adapted to the Professional Conduct of Physicians and Surgeons* by the physician Thomas Percival (12). He combines philosophy and science, and it follows that medical ethics refers to the science of reason, and as in all sciences, its goal is the search for truth that is unbiased, unique, and independent of the observer, or in this case, professionals from the field of biomedicine (24). When bioethics, still often called medical ethics, focuses on biomedical professionals, their actions are primarily examined and evaluated as good or bad, depending on whether they are voluntary or deliberate (35). The foundations of bioethics focus mainly on beneficence, non-maleficence, autonomy, and justice as four fundamental principles as well as on various other values that provide guidelines for their application (36).

The term “sports science” refers to the scientific study of sports from various perspectives. It encompasses a

range of studies that are concerned with studying and understanding sport and exercise. Sport primarily involves the performance of a specific activity, is governed by certain rules, and, although it almost always has competitive goals (37), it encompasses more than traditional team-based games and competitive activities. One of the most widely accepted definitions of sport is that of the 1992 Council of Europe, which defines sport as a range of physical activities, whether recreational or organised, aimed at expressing or improving physical fitness and mental well-being, promoting social relationships or achieving competitive results at all levels (38). Numerous historical excavations show that sport is as old as humanity. If it focuses on the practices that are an indispensable part of the sport, it will find that the fundamental rule of what should and should not be done, or more precisely, what is good and bad — which is also the basis of bioethics (35). The development of sport led to more and more experts from various other fields of science, including biomedical professionals, being involved in the practice and application of sport (24). This led to the inclusion of bioethics in sports as a much-needed science in sports performance. Bioethics in sports is concerned with the study of decisions made in the field of biomedicine by all those involved in patient healthcare or, more accurately, by all actors in sports, for example, athletes, sports coaches, sports referees, administrators, owners, and legislators (37). In a general sense, it reflects the problems arising from the scientific and technological expansion of sport into the field of biomedicine and its social consequences in the present and future. It calls for a responsible approach to human life. Therefore, the development of sport was the driving force behind the unification of scientific, professional and legislative sporting activities with the incorporation of respect for and promotion of human life and the person, as well as human rights in the field of biomedicine (39). Sports medicine is a primary level of health care where athletes are examined before participating in sports to ensure their healthy participation (40). The primary aim of sports science, especially sports physiology, is to help athletes improve their performance and prevent and overcome injuries, while the main goal of sports management and some athletes is often to win, which can lead to unethical means to achieve this goal (41). This behaviour raises many ethical doubts and highlights the need for a framework to address these contemporary challenges increasingly facing professional sport today. Bioethics can effectively address these challenges by examining medical and scientific advances’ ethical, social, moral,

and legal implications (6). Bioethics plays an important role in the daily work of biomedical professionals dealing with ethical and moral issues that arise at the interface of sport and medicine. It covers a wide range of topics, including the use of performance-enhancing drugs, prohibited procedures, medical confidentiality, and informed consent. The importance of bioethics in sports lies in its ability to balance the competing interests of athletes, biomedical professionals, and general society. Ultimately, the proper application of bioethics in sport is critical to maintaining the integrity of sport and ensuring a level playing field for all athletes (42). Sport and medicine are not similar in their fundamental principles. Firstly, sport promotes fun, performance, competition, winning, and elitism, whereas medicine primarily promotes health, well-being, functionality, and disease prevention (43-45). However, although they are fundamentally different in their goals and methods, these two fields overlap in sports medicine, which combines the competitive and performance-orientated nature of sport with the health-orientated principles of medicine (46,47). In addition, sports medicine is supported by other biomedical professionals, such as physiotherapists, nutritionists, and psychologists, whose expertise contributes to athletes' overall well-being and performance (48).

It is clear from the above that bioethics in sports is an important sub-discipline of sports philosophy that deals with studying and treating ethical issues in sports (33). Its main aim is to analyse the ethical implications of various sporting practices, actions and decisions that affect human biology and health. From performance-enhancing drugs to injuries, gender, sexuality, and the use of technology, bioethics in sports covers a wide range of issues and concerns that require thoughtful and critical analysis from an ethical perspective (16). The aim is to promote fairness, safety, and integrity in sports while upholding the values of respect, autonomy, and justice for all involved (32). Bioethics in sport thus provides a framework for addressing complex ethical dilemmas that arise in the world of sport (16). Bioethics as an interdisciplinary discipline, and according to some as a super-interdisciplinary science (31,49), finds its place in the context of numerous highly complex cases of the use of banned substances and methods in professional sports today, such as Lance Edward Armstrong, Justin Alexander Gatlin, Maria Yuryevna Shara-pova and even the exclusion of Russian athletes from the 2016 Olympics and world competitions as appropriate frameworks for successful resolving such cases (16).

## 4 Ethics in sport

Ethics is the value system with which everyday decisions are made, or specifically, what one values and how one uses those values in everyday relationships with the environment (24). Ethics can be defined as a branch of philosophy that deals with the question of what is morally right or wrong, good or bad, just or unjust. It concerns the principles and values that guide human behaviour and decision-making, especially when decisions may have moral implications (50). Ethics involves questions about the nature of morality, the principles that guide ethical behaviour, and how individuals and societies should manage moral dilemmas. Ethics aims to provide a framework for understanding and evaluating the moral dimensions of human behaviour and to help individuals make ethically informed decisions (15). Ethics guides individuals and informs them about the tasks and activities of larger institutions or individual associations. In sports, in particular, it permeates the rivalry environment as an indispensable component of any form of competition. It is applied from an early age when children are taught to play or rather compete fairly and within the rules (51). Violating moral and ethical rules in adulthood can often have serious legal consequences. Accordingly, many associations today are trying to develop a framework for ethics in sports, including the International Association for the Philosophy of Sport (IAPS), which works to stimulate, encourage, and promote research and provide financial support for education in the field of philosophy of sport and related activities (27). Philosophers have been discussing ethics since Greco-Roman times, and determining them today in the context of modern sport can sometimes be quite difficult. After all, the ultimate goal of professional sports is usually to win. So, the question is how to build morality into a goal that can sometimes be nebulous. However, the need for ethics in sports is obviously to preserve the spirit of the sport or, more precisely, competition with the spirit of fair play (52). The most important components of the sporting environment are cooperation, gratitude, honour, humility and honesty, which are also the values taught by ethics (53). Ethical behaviour in sports is evident in many areas, such as:

- the observance of the rules in the game and the acceptance of penalties for violations,
- the application of rules that ensure the safety of athletes, fans, and officials,
- the regulation of the use of substances to enhance performance (29).

As can be seen, ethics in sports affects athletes at all levels of the sporting activity, including coaches, judges, managers, owners and fans. Almost all behaviour related to sporting activities is governed by the relevant ethical codex, which should be followed primarily by athletes as well as by all others involved in the sport's health, administrative, promotional, and business aspects (54). Various ethical problems in professional sports arise from mediation between multiple parties involved in sporting activities. These include many biomedical professionals, such as physicians, clinical nutritionists, physiotherapists, and nurses (55). Because health is the most important factor in the well-being and success of athletes, biomedical professionals are often under pressure to care for injured athletes, who usually need to return to their sporting duties as soon as possible (29). This pressure is exerted mainly by various organisations but sometimes also by the athletes themselves, who are driven by a strong desire for the best possible success and greater fame, which usually leads to a severe threat to the health and physical condition of the athletes. For example, excessive use of painkillers is observed among athletes so that they can continue to play professional sports for the sake of their teammates, especially the team, in case of specific injuries (34), which ultimately aggravates their injuries and can have numerous undesirable effects on their health and future athletic performance in the long run.

In addition to the usual physical injuries, athletes often suffer mental injuries, usually due to the pressure to perform as well as possible or, more specifically, to win in professional sports (55). How individual athletes deal with serious physical, mental, or both injuries can vary. Some understand injury as a natural condition that every athlete is exposed to on a daily basis in the pursuit of their sport and accordingly approach treatment with the attitude that the only thing they need is rest and recovery to resume their sporting activities (34). Athletes who perceive a serious injury as a great loss often experience a strong mental impact and accordingly often accelerate the course of recovery to return to usual sports activities as soon as possible, even at the cost of suffering severe pain during sports performances (55). Studies indicate that athletes most often decide to do such an act because of the belief that it makes them better in the eyes of their team members (12), especially regarding teammates who honestly admit that they need more time for full recovery (56), ultimately they strive to be superior to such teammates to prove that they are better than them but at the same time more valuable to the team (57). It is clear from numerous sports medicine reports that

for some athletes, it is so important to be part of the game — a continuous athletic performance — that they hide the extent of their injuries for fear of being excluded from performance or training (58), which certainly points to the need for ethics in sport. Namely, preparing biomedical professionals with knowledge of bioethics would enable them to be aware that an athlete might ask them not to inform the authorities of the true extent of their injury, which, in effect, means exposure to ethical doubt (59). Similarly, biomedical professionals are often subject to pressure from boards to meet requirements regarding managing their professional decisions, which undoubtedly leads to various ethical doubts (55). When boards are satisfied with their professional decisions, they usually grant them a privileged position within the healthcare group, meaning they have particular power in certain decisions (60). When this is compounded by possible rewards for making appropriate decisions or, better yet, achieving personal gain, it increases the possibility of engaging in borderline ethical behaviour (61). Their position in certain professional associations and boards may also influence their relationship with athletes. This conflict of interest usually occurs at the fundamental point of monitoring professional, ethical behaviour (62). From all this, the question arises of the position that biomedical professionals should take in sports associations, as well as whether there are ethical guidelines for the actual management of patients, in this case, athletes. As sports and occupational medicine have many contact points and overlap, the basic ethical principles may be the same, but their application may vary as each field has its own challenges and contexts (63,64). Therefore, the ethical rules of occupational medicine can provide a good foundation, but the specific needs and challenges of professional athletes must be considered, including sports medicine (65). Occupational medicine focuses primarily on preventing work-related injuries and illnesses, promoting health and productivity in the workplace, and ensuring that workers are medically able to perform their jobs. Ethical issues in this area include, in particular, the confidentiality of medical records, informed consent to medical procedures, and dealing with conflicts of interest, which applies first and foremost to professional athletes, as playing sports is a profession in which they exercise their rights under labour law (63). Sports medicine, on the other hand, is mainly concerned with preventing and treating injuries associated with sports and exercise and, therefore, applies to all types of sports, both recreational and professional (66). This field faces unique ethical challenges, such as the use of performance-enhancing drugs, the

pressure to return to play despite injury, and the mental health of athletes (67). Under ideal conditions, the behaviour should be defined by contractual obligations that take ethical behaviour for granted. However, it is uncertain how the contract would affect the individual duties of biomedical professionals, particularly confidentiality and patient/athlete welfare (60). Accordingly, the leading role of success in any activity is primarily the excellence of the human factor, and it is mainly achieved through education, which ultimately leads to change (68). Education, in fact, plays a crucial role in achieving human excellence, providing individuals with the necessary skills, knowledge, and experience to perform at their best. It helps develop critical thinking, problem-solving, and decision-making skills that are essential for success in any field. Education also enables individuals to learn about new ideas, perspectives, and experiences that can broaden their horizons and improve their understanding of the world surrounding them (69).

## 5 (Bio)ethical doubts in sport

There are a number of ethical approaches in the field of biomedicine, among which the principled approach is perhaps the most useful. It is based on the principles of beneficence, non-maleficence, autonomy, and justice mentioned earlier, founded by Tom Beauchamp and James Childress (62). Understanding them can be extremely useful in sports, especially in situations involving a range of complex and challenging ethical doubts in professional sports. However, these principles do not answer every ethical conundrum; they merely provide guidelines and encourage consideration of how to act appropriately, and in some cases, they may even compete with each other (70). A fundamental ethical principle in the field of biomedicine is respect for sovereignty, and its essential feature is knowledge. If informed consent is not obtained, the sovereignty of the athlete is compromised. Therefore, care should always be taken to ensure that sovereignty is never enforced in a way that interferes with the individual right of the patient, or rather, the athlete, to make their own decisions arbitrarily (71). The principle of well-being focuses on the well-being and promotion of the patient's well-being, in this case, the athlete. It is one of the core values of bioethics and is particularly important in clarifying the nature and aims of medicine as an activity that should primarily serve society. Athletes freely participate in sporting performances and must be aware of the possibility of injury, and therefore, they must be mindful that they

voluntarily expose themselves to it and should accept responsibility for it (72). It follows that the primary motivation of biomedical professionals when working with patients, in this case, athletes, should be a benefit, and the prior goal should be to do good by treating possible injury and preventing further harm, not just profit and/or victory (62). The principle of non-maleficence dictates that no harm be done, and in clinical circumstances, it can often conflict with the principle of beneficence. The conflict between the principle of non-maleficence and beneficence is actually a risk-benefit analysis. The principle of beneficence should always be considered together with non-maleficence, and as the final goal, it should have overall good over harm, following the traditional Hippocratic moral obligation (73). Likewise, the obligation to provide the overall good to patients, and in this case to athletes, requires a clear distinction between risk and probability when assessing harm and benefit (62). The principle of justice or rights includes the fair distribution of scarce resources (distributive justice), respect for human rights (justice based on rights), and respect for morally acceptable laws (legal justice) (74).

It follows that biomedical professionals should always behave fairly, even when the breakthroughs of different individuals or groups compete with each other. Distributive justice is essential for sports medicine, especially in the context of limited resources (75). Namely, when resources are limited, distribution should be based on need, not profit, fame, and/or talent. However, justice based on equity is equally important. It follows that the right of each individual, in this case, the athlete, to receive treatment when needed should be respected, as it would be unfair not to do so because of personal bias or contrary beliefs (71). Finally, case law dictates that one must not intentionally cause physical harm to a person, in this case, an athlete, or do anything that violates morally acceptable laws (76). Ultimately, it is obvious that all three obligations of justice are necessary for the sport. Ethical doubts in sports usually arise from questions such as:

- To what extent is it worthwhile to resort to certain means to achieve the desired goal?
- What criteria are used to determine the appropriateness of procedures?
- Is it worth circumventing ethical rules in order to win?
- How important is winning? (51)

These and similar thorny questions are asked much more frequently in sports than is generally assumed.



Therefore, bioethics in sports can provide appropriate and reasonable answers and thus make decisions based on conscience and moral values. Namely, wrong answers or, more precisely, inappropriate decisions can permanently affect success in the life of an individual athlete (6). Accordingly, and given the problems in the modern world of sports, it is not surprising that some of the same ethical questions are asked again and again, such as ethical moments in sports and how to recognise them, what is not moral, whether athletes have an attitude and whether they ever think about whether something is ethical or not from the ethical perspective of sport, especially when it comes to professional sport (33). There are also many ethical concerns in sports management regarding athletes and games. Some of the key ethical issues facing sports managers, as well as others involved in sports management and decision-making, are:

- A diversity issue. Namely, from the selection and preparation of athletes to the employment of sports coaches and other staff, it is increasingly important to develop an ongoing awareness of inequality during employment, particularly concerning race, ethnicity, sex, and sexual and religious orientation.
- The salary issue. The professional sports industry is often criticised for paying unequal salaries, especially concerning sex.
- Sportsmanship. Due to the increasingly frequent use of performance-enhancing drugs and procedures, fights, match-fixing, and the like, it is necessary to develop ethical patterns of behaviour during the game but also outside the sports playgrounds (70).

It is also evident that there is a need to develop a system of bioethical counselling and promotion of bioethical standards in sport, especially in cases of ethical doubts related to the safety and health of athletes, in public statements, which should be primarily truthful and impartial, and in all other actions and mutual relations, which should be primarily based on respect and kindness (6). Bioethical counselling is essential for biomedical professionals working in sports as it helps them overcome ethical doubts and uphold ethical principles in their practice. Biomedical professionals in sport care for athletes and ensure their physical and mental well-being. However, in doing so, they may encounter many ethical doubts and need guidance and support to make the best decisions. Therefore, bioethical counselling can provide this support by helping professionals to reflect on their values, identify ethical issues and develop strategies to address them (15).

## 6 Conclusion

It is human nature to avoid losses and have an overwhelming will to win, resulting from a unique selection of competitive instincts. In sports, it is clear that one must harness these instincts to succeed, especially when it comes to professional sports. However, the road to success — the growth of athletes' careers — should be paved with values that guide the appropriate behaviour of athletes and all other interested parties (21). Namely, neglecting these values, based on the bioethical rules, means failing to recognize and fight against the original spirit of sport, which is primarily based on honesty.

Usually, athletes are often told before a game to keep their heart on the field to encourage their teammates to play better and create a winning atmosphere. However, this encouragement cannot really be applied to biomedical professionals, mainly because sports occur in an exciting and sensitive environment. Similarly, biomedical professionals who practice sports medicine often also practise sports because they are passionate about sports. However, this passion can sometimes clash with the requirement to be impartial about the game's outcome when working with injured athletes. Therefore, they must constantly keep in mind that they must abide by the rules of professional behaviour and honesty, and bioethical education or principles can help them to do so. Before each game, they should be reminded of the basic principles of good practice and the importance of athlete sovereignty. They should also avoid being too involved with sports management to ensure that bioethical principles are taken into account in the pursuit of winning and thus making a profit. In order to achieve this objective, it is necessary to maintain professional distance and adhere to bioethical teachings. By considering the values, principles, and norms underlying medical and scientific practises, bioethics in the context of sport can provide guidance and recommendations for bioethical decision-making concerning (bio)ethical doubts or controversies that may arise, such as the use of performance-enhancing drugs, non-therapeutic use of gene therapy and ethical considerations related to using new technologies (6). Many of these (bio)ethical doubts occur in medicine primarily because the treatment of the patient, who in this case is the athlete, has yet to be corrected or, more precisely, updated so that the approach is in step with the times. Likewise, the wishes and priorities of the team's aspirations can often clash with, or even replace, the biomedical professionals' original commitment to the athletes' welfare. On the other hand, the usual ethical principles of beneficence,

non-maleficence, autonomy, and justice, which above all provide guidelines for most clinical cases, are only sometimes easily implemented in sports medicine, requiring numerous adjustments. Moreover, biomedical professionals are often under great pressure from management and sports coaches, but also from athletes who want to improve their athletic performance in the shortest possible time at any cost, without choosing the means and without considering the long-term consequences of such decisions (1). While it is well known that athletes use performance enhancers to gain a competitive advantage, in practice, those whose training is not planned correctly (lack of periodisation) resort to them, resulting in sub-optimal recovery periods that accumulate over time and leave the athlete with performance and health problems. Such a tired and unhealthy athlete then seeks sub-optimal solutions, and the vicious circle is complete (77-79). Such circumstances as well as numerous similar ones are the source and stimulus for many (bio)ethical doubts. For many of them, finding the correct answer and, thus, the right action is challenging. Accordingly, biomedical professionals involved in sports medicine should share their everyday cases and experiences of (bio)ethical doubt with others through scientific publications, lectures or meetings. Such an approach would promote mutual discussions

that contribute to resolving (bio)ethical problems and present possible solutions to similar (bio)ethical doubts in the future. There is a need to educate biomedical professionals and athletes about bioethics so that they can successfully respond to these challenges. Educating biomedical professionals and athletes about bioethics is critical to enable them to respond effectively to the ethical challenges that arise in their respective fields today. Bioethics provides a framework for addressing (bio)ethical issues related to healthcare, research, and sport. It equips biomedical professionals and athletes with the skills necessary to make informed decisions with athletes' welfare and ethical considerations at the forefront (42). By incorporating bioethics into their daily practice, these individuals can uphold bioethical principles and values, promote integrity, and strengthen public trust. Therefore, investing in bioethical education and training programmes is a worthwhile endeavour that can contribute to better medical care, scientific advances and bioethical behaviour in sports, and ultimately provide a foundation for establishing and developing bioethical counselling in sports, whether recreational or professional.

### Conflict of interest

None declared.

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