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Review article

Perspectives of bioethics in sports practice: a comprehensive analysis

Perspectivas de la bioética en la práctica deportiva: un análisis integral

Perspectivas da bioética no esporte: uma análise holística

Deyanira Stephanie Posso Ayala^{1*} , Richar Jacobo Posso Pacheco² ,
Ageda Raquel Simba Pozo³ , Sandra Elizabeth Simba Pozo³ 

¹ San Francisco University of Quito. Ecuador.

² Central University of Ecuador. Ecuador.

³ Christopher Columbus Basic Education School. Ecuador.

* Corresponding author: deyaniranw@gmail.com

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ABSTRACT

The ethical complexity in sports practice has diverse perspectives that generate dilemmas when applying universal principles, in a competitive environment in constant evolution and with technological, social and cultural advances necessary, to establish a coherent and applicable ethical framework in the field of sports. The objective of this research was to



analyze the ethical-sports perspectives and approaches present in bioethics applied to sports practice, in order to understand the emerging ethical dilemmas and current trends in this field. The research was theoretical, through a documentary review, in which the steps of searching and selecting scientific articles were followed; validated information was extracted from academic databases, the findings were systematically organized and finally a narrative synthesis was carried out. The diversity of ethical-sports approaches highlights the constant need to balance competitiveness with fundamental values, of how sport faces dilemmas that require a balance between the pursuit of sporting excellence and respect for integrity, equity and diversity; which challenges all actors to promote a more inclusive sports environment. It was concluded that sport evaluates multiple dimensions, including deontological ethics, equity for athletes and virtue; the importance of regulations to protect integrity, promote an ethical environment and address challenges in emerging sports competition and technology was highlighted.

Keywords: bioethics, sport, approaches, ethics

RESUMEN

La complejidad ética en la práctica deportiva tiene diversas perspectivas que generan dilemas al aplicar principios universales, en un entorno competitivo en constante evolución y con avances tecnológicos, sociales y culturales necesarios, para establecer un marco ético coherente y aplicable en el ámbito del deporte. El objetivo de esta investigación consistió en analizar las perspectivas y enfoques éticos-deportivos presentes en la bioética aplicada a la práctica deportiva, con el fin de comprender los dilemas éticos emergentes y las tendencias actuales en este campo. La investigación fue de tipo teórica, a través de una revisión documental, en la que se siguieron los pasos de búsqueda y selección de artículos científicos; se extrajo información validada de bases de datos académicos, se organizaron sistemáticamente los hallazgos y finalmente se realizó una síntesis narrativa. La diversidad de enfoques ético-deportivos subraya la necesidad constante de equilibrar la competitividad con los valores fundamentales, de cómo el deporte enfrenta dilemas que requieren un equilibrio entre la búsqueda de la excelencia deportiva y el respeto por la integridad,



equidad y diversidad; lo que desafía, a todos los actores, a promover un entorno deportivo más inclusivo. Se concluyó que el deporte evalúa múltiples dimensiones, incluidos la ética deontológica, la equidad para atletas y la virtud; se destacó la importancia de normativas para proteger la integridad, promover un ambiente ético y abordar los desafíos, en la competencia y tecnología deportivas emergentes.

Palabras clave: bioética, deporte, enfoques, ética.

ABSTRACT

The ethical complexity in sports practice has diverse perspectives that generate dilemmas when applying universal principles, in a competitive environment in constant evolution and with technological, social and cultural advances necessary, to establish a coherent and applicable ethical framework in the field of sports. The objective of this research was to analyze the ethical-sports perspectives and approaches present in bioethics applied to sports practice, in order to understand the emerging ethical dilemmas and current trends in this field. The research was theoretical, through a documentary review, in which the steps of searching and selecting scientific articles were followed; validated information was extracted from academic databases, the findings were systematically organized and finally a narrative synthesis was carried out. The diversity of ethical-sports approaches highlights the constant need to balance competitiveness with fundamental values, of how sport faces dilemmas that require a balance between the pursuit of sporting excellence and respect for integrity, equity and diversity; which challenges all actors to promote a more inclusive sports environment. It was concluded that sport evaluates multiple dimensions, including deontological ethics, equity for athletes and virtue; the importance of regulations to protect integrity, promote an ethical environment and address challenges in emerging sports competition and technology was highlighted.

Keywords: bioethics, sport, approaches, ethics



RESUMO

A complexidade ética na prática do esporte tem diversas perspectivas que geram dilemas ao aplicar princípios universais, em um ambiente competitivo em constante evolução e com os avanços tecnológicos, sociais e culturais necessários para estabelecer uma estrutura ética coerente e aplicável no campo do esporte. O objetivo desta pesquisa foi analisar as perspectivas e abordagens ético-esportivas presentes na bioética aplicada ao esporte, a fim de compreender os dilemas éticos emergentes e as tendências atuais nesse campo. A pesquisa foi de natureza teórica, por meio de uma revisão documental, na qual foram seguidas as etapas de busca e seleção de artigos científicos; informações validadas foram extraídas de bancos de dados acadêmicos, as descobertas foram sistematicamente organizadas e, por fim, foi realizada uma síntese narrativa. A diversidade de abordagens éticas no esporte destaca a necessidade constante de equilibrar a competitividade com os valores fundamentais, como o esporte enfrenta dilemas que exigem um equilíbrio entre a busca da excelência esportiva e o respeito à integridade, equidade e diversidade, e desafia todos os atores a promover um ambiente esportivo mais inclusivo. Concluiu-se que o esporte avalia várias dimensões, inclusive a ética deontológica, a equidade para os atletas e a virtude; destacou-se a importância das regulamentações para proteger a integridade, promover um ambiente ético e enfrentar os desafios das competições e tecnologias esportivas emergentes.

Palavras-chave: bioética, esporte, abordagens, ética.

INTRODUCTION

Deontological and utilitarian ethics represent essential ethical frameworks with significant influence in the sports field. According to Juárez and Lira-Mendiguren (2020), it is based on universal and immutable principles that must be followed, regardless of the resulting consequences. In the sporting context, this ethical approach is manifested through rules and regulations aimed at guaranteeing the equity, integrity and protection of athletes; however, Quiroz *et al.* (2021) mention that the interpretation and application of these standards can generate debates, due to ambiguous situations that require precise evaluations.



On the other hand, utilitarian ethics focuses on maximizing general well-being, Corbal (2021) ensures that actions must be evaluated according to their consequences and their capacity to generate the greatest benefit to the majority. In the sports field, Eduarte-Águila *et al.* (2019) express that this approach generates dilemmas when considering the implementation of technologies or medical treatments that improve sports performance. The use of these technological advances can create ethical conflicts when weighing the collective benefit with the individual risk for the health and well-being of athletes and addressing complex questions about the justification of this problem.

Likewise, virtue ethics in sport focuses on promoting positive moral traits among athletes. Santome-Sánchez (2019) mentions that an ethical-sports environment must be created that promotes the moral growth and integrity of practitioners; however, the practical application of these virtues in the sporting field generates expectations about how to integrate them with competitiveness, pressure for performance and results in high-level sport.

Constantly evolving trends in the sporting world present challenges to establishing a coherent and relevant ethical framework. Technological advances, such as genetic modification or the use of performance monitoring devices, raise ethical questions about the limits of human improvement and its impact on the fairness of competition. The rapid adoption of these technologies challenges the capacity of regulatory bodies and sporting institutions to keep up to date.

Furthermore, cultural and social changes in the sports field raise ethical dilemmas about how to address issues such as gender equality, the inclusion of people with disabilities or cultural diversity in sports competitions (Carrizo-Páez, 2021), which ensures policies and ethically based practices.

Finally, the emergence of new forms of sports competition, such as electronic sports (Bascón-Seda and Ramírez-Macías, 2021), raise ethical questions regarding their validation as sports and the regulation of ethical aspects related to participation, equity and integrity in this emerging area. These challenges continue, and difficulties arise in establishing a complete and updated ethical framework that adapts to the changing dynamics of the contemporary sports world.



With the above, the objective of the research is based on analyzing the perspectives and approaches present in bioethics applied to sports practice, in order to understand emerging ethical dilemmas and current trends and consider constantly evolving aspects such as technological advances, sociocultural changes and new forms of sports competition.

To fulfill the research objective, a theoretical study was carried out (García-González and Sánchez-Sánchez, 2020) from a general view of the ethical approaches present in bioethics applied to sports practice that focused on the compilation and analysis of information, to answer the research question, what are the main perspectives present in bioethics applied to sports practice and how are they influenced by technological, sociocultural changes and new competition dynamics?

A search was carried out for scientific articles published in the last five years in the Google Scholar and Dialnet databases, the keyword strategy was applied: sports bioethics, ethics in sports, ethical and sports dilemmas, ethics and technology and bioethics in the competition. Seventy-six articles were found, the summaries and relevance aligned to the research question were reviewed, and 16 documents were selected to support the research.

The sources were validated by evaluating the indexing of the journals and the authors' indexes. The information was organized in a review registry instrument, from which the methodology, results and conclusions of each article were taken. The findings were grouped by dimensions of ethics in sport, ethical and sporting dilemmas, ethics and technology and bioethics in competition; finally, a narrative synthesis was constructed.

This study provided a solid foundation for understanding the various ethical perspectives in bioethics applied to sport. Likewise, it served as a valuable reference for future research in this field, it was offered a robust theoretical framework and an updated theoretical vision. Which contributes significantly to the understanding of the ethical complexities in the field of sports, it was promoted reflection and debate around these key issues.





DEVELOPMENT

Table 1 summarizes the different dimensions for the study of ethics, identified in the sports field and its key aspects, derived from the theoretical review. Each dimension highlights specific aspects related to ethical approaches, contemporary challenges and emerging dilemmas in sports ethics.

Table 1. - Systematic review findings

Bibliographic data	Ethical dimensions in sport	Main Aspects
León-Sanz (2023)	Deontological and utilitarian ethics	Deontology, universal ethical principles.
Novoa-Jurado and Abellán (2022)		Utilitarianism, ethical evaluation based on consequences and collective benefits.
López-Pérez, (2023) ; Arias-Mozo and Quishpe-Gaibor (2022) ; De La Torre Lascano and Quiroz Peña (2023) ; Bajatierra Ruiz (2022)		Sports regulations for equity and protection of athletes.
Kavussanu (2022)	Virtue ethics	Promotion of positive moral traits in athletes.
Ribó and Minetto (2023) ; Quesada (2022)		Challenges in integration with competitiveness and sports results
Pérez (2022) ; Dauval-Borges et al. (2023) ; Hernández-Rivero and Viamonte-Rodríguez (2022)	Trends in ethical evolution in sport	Technological advances and their ethical implications.
Pedraz (2013) ; Gutiérrez Sanmartín (1998) , Lera and Suárez (2019) ; Moscoso and Piedra (2019) ; Moscoso-Sanchez (2020)		Sociocultural changes and ethical dilemmas in inclusion and diversity.
Bascón-Seda and Ramírez Macías (2021) ; Manón (2021) ; Morán (2021) ; Vargas-Olarte (2019)		New forms of competition (electronic sports) and their ethical challenges.



Ethics in the sports field represents a complex and dynamic field that requires constant reflection on emerging values, principles and ethical dilemmas. In the context of bioethics, the analysis of the intersections between physical activity, sport and moral and ethical considerations acquires increasing relevance. In this research, an analysis is carried out from various perspectives and ethical approaches present in sports practice, through a theoretical review that allowed the identification of the fundamental dimensions and current trends in the field of sports ethics.

Different ethical dimensions are outlined and analyzed, ranging from deontological and utilitarian approaches to virtue ethics, as well as emerging trends linked to technological advances, sociocultural changes and new forms of competition in the sports world.

This comprehensive analysis allows to understand the ethical-sports challenges faced by athletes, coaches, institutions and society as a whole and provides a detailed vision of the ethical perspectives present in bioethics applied to sports practice. The analysis of the following dimensions aims to illuminate and enrich the understanding of current ethical dilemmas and possible future directions in this constantly evolving process.

Deontological and utilitarian ethics

Deontological and utilitarian ethics represent two fundamental approaches in the ethical-sports analysis of sports practice; relevant authors such as León Sanz (2023) and Novoa Jurado and Abellán (2022) highlight the importance of these universal ethical approaches. Deontology focuses on ethical-sports principles that serve as a guide to determine the morality of actions, independent of the consequences, which implies that certain actions are intrinsically correct or incorrect, based on established principles, without considering their immediate results.

In this context, sport highlights the need to adhere to decision-making related to conduct, rules and integrity; consequently, utilitarianism is based on the ethical evaluation of actions according to their collective consequences and benefits; Therefore, an action is ethical if it produces the greatest well-being for the greatest number of people involved.



In the field of sports, the utilitarian perspective urges evaluating ethical decisions, considering not only the immediate benefits for those involved, such as athletes and teams, but also the long-term well-being of athletes, spectators and other actors related to sports. From a deontological perspective, ethical actions must be based on solid moral principles, such as strict adherence to established rules and regulations, as well as intrinsically ethical values, which guarantee integrity and fairness in sport, regardless of the immediate consequences or specific results to an action.

On the other hand, with the utilitarian paradigm, ethical decisions in sport are evaluated based on the global impact and long-term consequences; in this sense, the collective well-being and benefits of all those involved in the sporting field are fundamental to determining the ethics of a specific action.

Both sports-ethical approaches offer different, but complementary perspectives to address ethics in sports, which is why deep reflection is needed on the fundamental values and implications in sports decisions, recognizing the inherent complexity of balancing principles and collective consequences, in a constantly changing sports context.

Sports regulations for equity and protection of athletes

Several researchers, including Arias-Mozo and Quishpe-Gaibor (2022) Lópaz -Pérez (2023) and Quiroz-Papa *et al.* (2021), focus their studies on the crucial importance of establishing regulations aimed at promoting equity and guaranteeing protection within the ethical context and highlight the need to implement regulations and guidelines that safeguard integrity, while protecting physical, mental and emotional of athletes.

The relevance of specific regulations that ensure a fair and equitable playing field for all participants is also highlighted, covering clear and impartially applicable rules, up to the implementation of policies to avoid any form of discrimination or inequality within the field of sports and direct attention towards the protection of athletes in different aspects that include physical and emotional safety during competition, prevention of abuse or situations that put their well-being at risk, as well as respect for their individual and collective rights.



Therefore, there is an urgent need to develop and apply solid regulations that ensure the equity and well-being of athletes, at all stages of their sports participation, establish ethical guidelines that regulate competition and guarantee a safe environment, to the comprehensive development of athletes and promote ethical, healthy and equitable sports practice.

Virtue ethics

Virtue ethics emerges as a relevant approach in ethical reflection within the sports field. In this sense, Kavussanu (2022) emphasizes the importance of cultivating and promoting positive moral traits among athletes, recognizing that ethical values and behaviors not only contribute to sporting success, but also shape integrity, ethical conduct and morality of athletes.

Virtue ethics does not focus solely on compliance with established regulations or rules, it also places emphasis on the development of moral traits and virtues in individuals; from this perspective, it is sought to promote moral excellence and the development of positive ethical qualities such as honesty, responsibility, perseverance, solidarity and respect within the sporting context.

By promoting virtue ethics among athletes, we contribute to the formation of better athletes, the creation of upright and ethically responsible individuals in society, focused on sports performance and the search for nurturing moral character; this positively influences their decisions on and off the playing field.

Challenges in integration with competitiveness and sports results

Ethical challenges arise when trying to integrate ethical values, in a highly competitive and results-oriented context in the sports field (Quesada, 2022 and Ribó and Minetto, 2023) . In this sense, there are ethical complexities in reconciling the pursuit of sporting excellence with the preservation of fundamental ethical values in sport.



In this competitive environment, a constant tension stands out between the achievement of competitive goals and the maintenance of ethical standards, which generates ethical dilemmas, such as the temptation to sacrifice integrity and fair play or equity in order to obtain favorable results. An ethical balance must be maintained where pressure for performance does not lead to morally questionable decisions, in the search for unfair advantages or unethical practices, such as doping or manipulation of results; which conflicts with the fundamental ethical values of sport.

Furthermore, the pressure for results can generate situations in which ethical principles are compromised, giving rise to ethical dilemmas that are difficult to resolve and manifesting the need to find a balance between competitiveness and ethical integrity in sport, in particular. the search for strategies that allow achieving success without sacrificing essential ethical values.

Evolving trends in sports

The ethical effects derived from technological advances, sociocultural changes and ethical dilemmas related to inclusion and diversity in sport have been analyzed. The introduction of new technologies, such as monitoring devices, specialized equipment and data analysis methods raise ethical conflicts, regarding equity and justice in competition; these innovations offer unequal advantages to athletes, which is why the need to regulate their use is explored to maintain fair and ethical competition (Dauval -Borges *et al.*, 2023; Hernández Rivero and Viamonte Rodríguez, 2022 and Pérez, 2018).

Sociocultural changes in sport, such as transformations in society, the evolution of cultural norms and values impact ethics in this area; relate representation, gender equality, diversity and inclusion and promote ethical sporting environments that respect diversity and encourage the inclusion of all individuals, regardless of their origin, gender, sexual orientation or identity.



Likewise, emerging ethical dilemmas in relation to inclusion and diversity in sport, such as prejudice, discrimination and lack of equitable access, affect different groups within the field of sports and ethical strategies are proposed to address these challenges and promote a fairer and more ethical sporting environment for all.

New forms of competition (electronic sports) and their ethical challenges

When researchers ask how ethical challenges are addressed in new forms of competition in electronic sports, the answer is that these changes affect bioethics in the sports context and identify a series of significant ethical challenges (Bascón -Seda and Ramírez Macías , 2021; Manón , 2021; Morán, 2021 and Vargas-Olarte, 2019).

In this sense, e-sports pose unique ethical dilemmas compared to traditional sports, due to issues such as video game addiction, player mental health, exposure to virtual violence, and advertising regulation. All of this allows to address these ethical-sports challenges, to protect the health and well-being of participants in electronic sports.

Furthermore, fairness in competitions, the possibility of online cheating or fraud, and the regulation of players' rights in a virtual environment raise questions about integrity and honesty in electronic sports and underline the need for develop regulations that maintain ethics and equity in these competitions.

Likewise, ethical dilemmas must be addressed around representation and community in electronic sports and how these can influence the perception of gender, diversity and inclusion in a space where certain stereotypes or barriers predominate; in addition, ethical strategies are proposed to promote diversity and inclusion in esports that highlight the importance of creating inclusive and respectful environments.



CONCLUSIONS

The analysis carried out addressed various perspectives in the sports field that made it possible to compile and evaluate key ethical-sports approaches, through a detailed theoretical review; multiple ethical dimensions were identified that included deontological and utilitarian ethics, regulation for equity and protection of athletes, and virtue ethics, among other aspects.

Likewise, the critical need for sports regulations aimed at guaranteeing equity and safeguarding the integrity of athletes was highlighted. These regulations established a fair game, promoted policies that avoided discrimination and ensured a positive environment for sports development. The importance of cultivating moral values among athletes, through virtue ethics, was also emphasized.

Finally, the ethical-sports challenges in the integration of competitiveness and sports results were examined, as well as emerging trends in sports, from technological advances and electronic sports. These analyzes revealed the need to address ethical-sporting dilemmas in a constantly evolving sports environment that balances competition with fundamental values and promotes a more inclusive, equitable and ethical sports environment for all involved.

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The authors declare not to have any interest conflicts.

Authors' contribution:

The authors have participated in the writing of the work and analysis of the documents.



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