



**Sound Athletes Grow Sound Societies
Clean Sport Education**

**UNDERSTANDING GAPS, CHALLENGES AND
INTERESTS
OF THE SPORT SECTOR TOWARDS DOPING
IN SPORTS**

ERASMUS-SPORT-2022-SSCP

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EXECUTIVE SUMMARY

The Sound Athletes Grow Sound Societies – Clean Sports Education (SAGE) project, spanning 18 months, is a European initiative aimed at developing, testing, and disseminating innovative educational tools with a European dimension. These tools are designed to impart knowledge to young athletes, enhancing their critical thinking abilities and empowering them to make informed choices for their health towards doping. Aligned with the Erasmus+ Sport (Small Collaborative Partnership) theme of "Common values, civic engagement, and participation," SAGE embodies the connecting, engaging, and empowering of youth through sports, echoing the objectives outlined in the EU's 2019-2027 Youth Strategy and European Sport Policy.

In response to the 2021-2024 Work Plan of Europe for Sports, which emphasizes addressing cross-border threats to the integrity of sport, such as doping, SAGE focuses on informing young athletes and stakeholders through innovative means about doping, nutritional supplements, and their impact on health. The project delves into natural methods to boost athletic performance, alternative medicines, athletes' rights, and EU regulations related to doping. The overarching goal is to establish a robust, issue-focused partnership, encouraging the exchange of good practices and building collective capacity. Through intercultural dialogue, the project fosters an open and respectful exchange of views among individuals and groups from diverse cultures.

SAGE aims to produce a European dimension training module addressing three key aspects: doping and youth in sport, "natural" medicines, and the rights and obligations of athletes. Achieving this goal involves transnational cooperation among relevant organizations, including a sport club (Slovenia), two sport organizations (Greece and Spain), a Natural Medicine College (Portugal), and a youth organization (Germany).

Within the ambit of Work Package 2, "Data Collection & Educational Tools Development," the SAGE consortium is dedicated to scrutinizing the prevailing landscape in their respective countries concerning the tools, methods, skills, and knowledge available for educating about doping. The primary objective is to amass a comprehensive database encapsulating the three focal points of the SAGE training program: doping and youth, natural medicines, and the rules and rights of athletes. This consolidated report amalgamates insights from all consortium partners, serving

as the foundational groundwork for the subsequent phase— the creation of the methodological guide for SAGE. It marks a crucial step in synthesizing diverse perspectives and experiences into a cohesive resource that will inform the educational tools and strategies developed in the ensuing stages of the project. The collaborative effort of the consortium in producing this consolidated report underscores the commitment to a harmonized approach in addressing the multifaceted challenges associated with doping education.

KEYWORDS

Clean Sports Education, Doping, Natural Medicines, Sports, Young Athletes

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ACRONYMS

EU: European Union

NGO: Non-governmental organisation

SAGE: Sound Athletes Grow Sound Societies – Clean Sports Education

WADA: World Anti-Doping Agency



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1. FRAMEWORK AND METHODOLOGY

The Sound Athletes Grow Sound Societies – Clean Sports Education (SAGE) project is anchored in the profound belief held by the European Union and the Council of Europe regarding the crucial role of sport in shaping individual well-being and fostering societal values. As articulated by the European Union, sport is not merely a pursuit of physical health but a powerful force for social integration, tolerance, and understanding. The Council of Europe recognizes sport's unique ability to promote democracy, human rights, and the rule of law, emphasizing its capacity to instill ethical values and social competencies¹. However, the scourge of doping has emerged as a significant threat to the integrity of competitive sports, endangering the health of athletes and undermining the fundamental principles of fair play, equal chances, and loyal competition.

The Council of Europe, in collaboration with the World Anti-Doping Agency (WADA)², has been at the forefront of efforts to combat doping globally. Recognizing that doping extends beyond professional athletes to impact amateurs and recreational participants, the Council of Europe emphasizes the need for collective action against this detrimental practice. In alignment with WADA's vision for a doping-free sporting environment, the SAGE project responds to the call for transnational collaboration outlined in the Erasmus+ Sport Chapter.

Under the framework of Work Package 2 “Data Collection & Educational Tools Development”, a comprehensive methodological framework was developed to investigate and address the complex issues surrounding doping in sports. The field research initiative was undertaken to gain insights into the existing gaps, prevailing attitudes, and behaviors among stakeholders and young athletes in the realm of sports and doping. The research methodology employed was meticulously crafted to address the specific issues at hand, ensuring a thorough exploration of the subject matter. By combining qualitative and quantitative research tools, including interviews, questionnaires, and a review of best practices, the framework aims to provide a comprehensive understanding of the attitudes, behaviors, and challenges faced by stakeholders, particularly young athletes, in the context of doping. The collaboration with sports organizations at the international level aligns with the Council of Europe's recommendations and contributes to the overarching goal of fostering a doping-free sporting environment where sport truly brings people together in the spirit of fair play and ethical competition.

¹ Council of Europe. (n.d.). Sport. Retrieved from <https://www.coe.int/en/web/sport/home?desktop=true>

² World Anti-Doping Agency. (n.d.). Who we are. Retrieved from <https://www.wada-ama.org/en/who-we-are>

The methodological approach was bifurcated into two distinct parts, each aligned with a specific research tool. The first tool involved in-depth interviews conducted with 15 in total (at least 3 each project partner) stakeholders, carefully selected to represent diverse perspectives within the sports and doping landscape. These interviews were instrumental in capturing nuanced insights, providing a qualitative dimension to the research. By engaging with key stakeholders, we aimed to uncover implicit knowledge, opinions, and experiences that might not be readily apparent through quantitative methods alone.

The second research tool utilized was a structured questionnaire, administered to a cohort of 100 young athletes in total (at least 20 each project partner). This quantitative approach allowed for the systematic collection of data on a larger scale, enabling statistical analysis and generalization of findings. The questionnaires were designed with precision to elicit responses that could shed light on the attitudes and behaviors of young athletes concerning sports and doping. This quantitative data served as a valuable complement to the qualitative insights obtained through interviews, contributing to a more comprehensive understanding of the subject.

The importance of employing a mixed-methods approach, combining interviews and questionnaires, lies in the synergy between qualitative depth and quantitative breadth. The interviews provided rich, contextualized narratives, while the questionnaires facilitated the identification of patterns and trends across a broader spectrum. This dual approach enhances the robustness and reliability of the research findings, offering a multifaceted view of the complex dynamics within the sports and doping domain.

This report highlights outcomes of research focusing on athlete needs, doping prevention, and supplement awareness among various stakeholder groups. The two groups:

- consisting of coaches, trainers, sports organizations, academic institutions, and anti-doping agencies (optional)
- comprising young athletes aged 13-25 who participate in competitive sports.

The research yielded five national reports, corresponding to each partner organisation:

1. EVROPAIKO KENTRO KOINONIKON EPISTIMON POLITISMOU KAI ATHLITISMOU (Greece)
2. ODBOJKARSKI KLUB TPV VOLLEY NOVOMESTO (Slovenia)
3. ASOCIACION CULTURAL Y DEPORTIVA LAHOYA (Spain)
4. uDevelop e.V. (Germany)
5. CPMN - Colégio Português de Medicina Natural Portugal Partner (Portugal)

The final comprehensive report is compiled by the EVROPAIKO KENTRO KOINONIKON EPISTIMON POLITISMOU KAI ATHLITISMOU.

2. INTERVIEWS

2.1 AIM AND PREPARATION

The interviews aimed to gain comprehensive insights into the knowledge, attitudes, and practices related to doping among young athletes. The ultimate goal was to identify gaps in information, understand the motivations behind doping behaviors, and assess the effectiveness of current anti-doping measures. The diverse participant group and the recommended sample size of three per country were intended to provide a broad and representative perspective on the issue.

To achieve the objectives outlined above, a structured interview approach was employed. The interviews, conducted either in person or online, spanned a duration of two months to allow for thorough exploration of the selected topics.

The questions were carefully crafted to cover various aspects related to doping, ranging from general characteristics to specific challenges in promoting clean sports practices.

The initial segment focused on obtaining basic demographic information and understanding the role and experience of each participant. Questions regarding age, position within the club/organization/institution, and duration of their current role set the stage for a comprehensive exploration of their perspectives.

- **What age are you?** This question aimed to provide context to the responses, allowing for insights into potential generational differences in perspectives.
- **What is your role (inside of the club/organisation/institution)?** Understanding the participants' roles was crucial for contextualizing their responses and identifying the specific areas of expertise each participant brought to the discussion.
- **For how long have you been in this position?** This question established the participants' level of experience, contributing to a nuanced understanding of their insights.

The subsequent questions delved deeper into specific aspects related to doping and its prevention among young athletes. The structured nature of these inquiries aimed to elicit comprehensive responses, providing a rich dataset for analysis.

- **Do young athletes typically have enough information about doping, or are there gaps in their knowledge? If so, why do you think this happens?** Exploring the knowledge gap helped in identifying potential areas for educational intervention.

- *Do young athletes generally understand the risks associated with doping, including potential health consequences and legal issues?* Assessing the awareness of risks aided in understanding the effectiveness of current educational efforts.
- *Are you aware of the doping options that young athletes often resort to, and what factors do you believe drive them to choose these options?* Investigating the motivations behind doping behaviors provided insights into preventive strategies.
- *What are your thoughts on the use of performance-enhancing substances among young athletes?* Exploring attitudes towards doping shed light on the cultural and ethical aspects associated with performance enhancement.
- *Are you aware of the benefits and drawbacks of these substances?* Understanding the participants' knowledge of the consequences of doping contributed to identifying potential misconceptions.
- *Do you know any alternatives? What alternatives to chemical doping do you recommend to your athletes?* Exploring alternatives aimed to promote clean sports practices and provide viable options for athletes seeking enhancement.
- *Do you face any challenges in promoting a clean sports practice? If yes, by whom and in which way?* Identifying challenges helped in developing targeted strategies for promoting clean sports practices.
- *How do you see the current rules and regulations governing doping in sports, and how does this framework affect athletes and sports organizations?* Assessing perceptions of the existing framework informed potential areas for improvement in anti-doping regulations.
- *Do you know any activities/interventions with young athletes that have proven to be effective in preventing doping?* Identifying successful interventions contributed to the development of evidence-based anti-doping strategies.
- *If yes, are they in place in your club/organisation/institution? If not, what do you think the reasons are?* Understanding the implementation status helped in assessing the practicality and challenges of adopting preventive measures.
- *From the programs and policies you know, do you consider that they are effective as they are? If no, what do you suggest being done to improve their effectiveness?* Exploring the perceived effectiveness of existing programs informed recommendations for enhancing anti-doping initiatives.

By employing this comprehensive approach, the interviews aimed to gather nuanced insights into the complex landscape of doping in sports, ultimately contributing to the development of informed and targeted anti-doping strategies.

2.2 RESULTS

1) General Information about Respondents

Slovenia:

-Jaka Pavlin (Volleyball Coach): 20 years old, 2 years of coaching experience, former elite volleyball player.

-Tjaša Stanković (Ski Coach): 33 years old, 18 years of coaching experience with young athletes.

-Marko Bartolj (Volleyball Coach): 36 years old, 7 years of coaching experience with young athletes.

-Jana Vernig (Volleyball Coach): 46 years old, over 25 years of experience as an elite volleyball player and coach, specializing in young athletes.

Germany:

-Football Coach: Mid-40s, head coach with a solid foundation of experience.

-Handball Coach: 51 years old, 20 years of coaching experience, specializing in women's handball.

-Wrestling Trainer: 34 years old, over a decade of coaching experience in wrestling.

Portugal:

-João Mário (Hapkido Trainer): 21 years old, 2 years of experience.

-Miguel Oliveira (Futsal Coach): 41 years old, 9 years of experience.

-Manuel Jesus (Hapkido Champion and Coach): 26 years old, 3 years of coaching, 10 years practicing the sport.

Spain:

-Sara Sala Alonso (Football Player and Coach): 23 years old, 3 years of coaching experience.

-Fernando Sala Alonso (Youth Soccer Coach): 26 years old, approximately 6 years of coaching experience.

-Roberto Sanfelix Gil (Beach Volleyball Coach and Player): 25 years old, 4 years of coaching, 12 years as a player.

Greece:

- Christos Teligiannidis (Freelance Coach): 28 years old, 7 years of coaching experience.
- Evaggelia Mpouranda (Professor in Physical Education): 54 years old, working for about 3 years.
- Thanos Nikopoulos (Karate Coach and Champion): Champion and karate coach, 27 years old.

Overall Characteristics:

- Age Range: Participants range from early 20s to mid-50s.
- Experience: Varied coaching experience, from a few years to over two decades.
- Diverse Sports Background: Coaches specialize in sports such as volleyball, skiing, futsal, football, handball, wrestling, hapkido, and karate.
- Combination of Coaches and Former Athletes: Some participants have transitioned from being elite athletes to coaches, providing valuable insights from both perspectives.
- Geographical Spread: Participants are based in different cities within their respective countries, contributing to a diverse representation across regions.

2) Knowledge and Information Gap about Doping Among Young Athletes

Slovenia: In Slovenia, all athletes over 14 undergo mandatory doping training for participation in the national championship. However, younger athletes (<13 years old) lack anti-doping education in schools, clubs, and communities, resulting in a significant knowledge gap.

Germany: Coaches in Germany highlight a knowledge gap among young athletes, emphasizing the intricate nature of anti-doping regulations. Despite proactive efforts, gaps persist, underscoring the need for targeted education. Varying regulations across sports further contribute to the challenge.

Portugal: In Portugal, there is noted increased awareness, but limited information sharing among athletes remains an issue. Responders emphasize the necessity for more athlete knowledge on substances and procedures in sports. While there is easy access to information, gaps in athlete awareness persist.

Spain: Responders in Spain express a lack of formal education on doping/legal frameworks, emphasizing the need for athlete education. Information is primarily received through media coverage of doping cases, indicating a potential gap in structured educational programs.

Greece: Young athletes in Greece lack comprehensive information due to insufficient educational resources and awareness programs. The absence of anti-doping education in schools, clubs, and communities significantly contributes to the knowledge gap.

The insights collectively highlight the global need for enhanced anti-doping education, especially for younger athletes. Varying regulations, gaps in formal education, and limited information sharing are common challenges across nations. The importance of awareness programs and consistent anti-doping education in schools, clubs, and communities is emphasized universally. Addressing these challenges could contribute to better-informed athletes and a more effective global anti-doping effort.

3) Understanding young athletes' perception of doping risks

Slovenia: Coaches in Slovenia mention that while some young athletes have a basic understanding of health risks and legal consequences associated with doping, the depth of this understanding can vary. For young volleyball players under 14, parents play a significant role in controlling diet and nutritional supplements. Mandatory training on doping is provided for older players, contributing to a better understanding of the topic.

Germany: In Germany, perspectives from respondents highlight varying levels of awareness among young athletes. The desire for success and performance pressure may overshadow the severity of doping consequences for some. However, comprehensive education programs and support systems contribute to a solid understanding of risks among young athletes. Wrestling trainers note that while many young wrestlers are aware of risks, some may not fully grasp the gravity due to the allure of quick success and external pressures.

Portugal: In Portugal, Miguel Oliveira notes that athletes are generally aware of health and legal consequences, even if they lack awareness of specific substances and procedures associated with doping. João Mário emphasizes a focus on physical skills over legal ones, while Manuel Jesus notes that despite easy access to information, young people are often unaware of the consequences of using doping.

Spain: Insights from Spain indicate a mixed awareness among athletes. Sara Sala Alonso emphasizes that athletes generally prioritize taking care of their bodies through nutrition, emphasizing health and fitness. Fernando Sala Alonso notes a lack of knowledge about the consequences, with an understanding that doping is a form of cheating in their sport. Roberto Sanfelix Gil highlights that awareness increases with age and development, indicating a gradual understanding of the severe consequences associated with doping.

Greece: In Greece, the insights reveal varying levels of understanding among young athletes, with a potential underestimation of risks due to a desire for quick performance gains or

pressure to excel. The focus on legal consequences over health concerns highlights a crucial aspect that needs attention. The emphasis on understanding athletes' perspectives, as mentioned by E. Mpouranta, suggests the importance of tailored educational approaches to bridge the knowledge gap effectively.

The insights collectively underscore the necessity for a globally harmonized and targeted approach to anti-doping education. While some athletes exhibit solid awareness, there are consistent gaps in knowledge that need addressing. Family involvement, comprehensive training programs, and continuous education throughout an athlete's development emerge as crucial elements. The focus should be on not only imparting information but also understanding athletes' perspectives, desires, and pressures, tailoring education to effectively bridge the awareness gap and promote clean sports practices universally.

4) Doping options and motivations among young athletes

Slovenia: In Slovenia, J. Pavlin notes the significant influence of the Internet and social media on young athletes, acting as sources of information and role models. Unfortunately, the information available online is often misleading, and insufficient, and young athletes may lack critical thinking skills. The desire for improved athletic performance and a better image leads them to consume untested products, trusting the advice of older teammates and role models.

Germany: Insights from Germany reveal a complex landscape of doping options and motivations among young athletes. Respondents highlight the existence of athletes resorting to doping with motivations ranging from peer pressure and pursuit of quick results to a lack of awareness about alternatives. The desire to gain a competitive edge and achieve dreams is identified as a powerful motivator. The wrestling trainer acknowledges the challenges in the sport and the temptation for shortcuts, emphasizing the need for comprehensive anti-doping education and supportive environments.

Portugal: In Portugal, João Mário recognizes the influence of others and images on social media as significant factors in doping options. Athletes, aspiring to emulate individuals seen on social platforms, may succumb to doping temptations. Coach Miguel Oliveira and Manuel Jesus demonstrate awareness of specific doping options, including those related to muscle strengthening, weight loss, and performance enhancement.

Spain: Insights from Spain provide varied perspectives, with Sara Sala Alonso expressing a lack of awareness due to no exposure to doping sources. Fernando Sala Alonso attributes the motivation for doping to society's continuous pursuit of shortcuts in achieving accomplishments without putting in the required effort. Roberto Sanfelix Gil points to marijuana as an accessible and easily manipulable substance, potentially linked to the desire to fit in with specific social groups.

Greece: Responses from Greece echo similar patterns, acknowledging the existence of young athletes resorting to doping with motivations such as peer pressure, the pursuit of quick results, and a lack of awareness about alternatives. The desire to gain a competitive edge and fulfill aspirations emerges as a powerful motivator. The wrestling trainer underscores the challenges in the sport, emphasizing the temptation for shortcuts and the need for comprehensive anti-doping education.

The consolidated insights underscore the complex interplay of factors influencing young athletes' decisions to explore doping options. Peer pressure, societal pursuit of shortcuts, the desire for quick results, and a lack of awareness about alternatives emerge as common motivators. The pervasive influence of the Internet and social media, combined with a potential lack of critical thinking skills, highlights the need for targeted and comprehensive anti-doping education. Addressing these motivations effectively requires supportive environments, strong anti-doping cultures, and a focus on promoting clean sports practices universally.

5) Attitudes toward performance-enhancing substances

Slovenia: In Slovenia, there is a strong consensus among coaches, including J. Vernig, J. Pavlin, T. Stanković, and M. Bartolj, against the use of performance-enhancing substances among young athletes. The emphasis is not only on undermining fair competition but also on the significant health risks associated with such substances. Coaches advocate for a proper and balanced diet as a healthier alternative, emphasizing the importance of spreading awareness among young athletes and their parents about the benefits of a healthy lifestyle.

Germany: In Germany, the respondents express a unified stance against the use of performance-enhancing substances among young athletes. The first and second respondents stress the importance of fair play, sportsmanship, and educating young athletes about the health risks and consequences associated with such substances. They emphasize the values of integrity and a healthy lifestyle. The third respondent's seemingly divergent perspective, favoring the use, is implied to be a misunderstanding or miscommunication. The overall consensus among the majority of coaches underscores a commitment to prioritize the well-being of young athletes and foster an environment that discourages the use of performance-enhancing substances.

Portugal: In Portugal, all coaches share similar opinions, firmly against the use of performance-enhancing substances. João Mário, Miguel Oliveira, and Manuel Jesus express clear opposition, highlighting concerns about potential psychological dependence, health risks, and the detrimental impact on young athletes. The coaches unanimously advocate for a clean and ethical approach to sports, discouraging the routine use of substances and promoting

healthier alternatives.

Spain: In Spain, coaches, including Sara Sala Alonso and Fernando Sala Alonso, strongly discourage the use of performance-enhancing substances among athletes. They highlight the negative impact on fair competition and stress the importance of educating athletes on the associated risks, including the potential for disqualification from sports. Roberto Sanfelix Gil takes a more permissive stance, suggesting that as long as substances are legal, they can be positive for both sport and society.

Greece: In Greece, coaches, including C. Teligiannidis, T. Nikopoulos, and E. Mpouranta, share a unanimous stance against the use of performance-enhancing substances among young athletes. They emphasize the detrimental impact on fair competition, the health risks involved, and the potential for students to resort to substances driven by societal pressures and competitive environments. The coaches stress the university's efforts to promote sport values, educate athletes about regulations, and make them aware of the consequences, while acknowledging that athletes ultimately bear responsibility for their actions.

The consolidated insights reveal a strong global consensus among coaches against the use of performance-enhancing substances among young athletes. Coaches consistently emphasize the importance of fair play, sportsmanship, and educating athletes about the associated health risks. The need for comprehensive anti-doping education, promoting a healthy lifestyle, and fostering ethical values in sports emerges as a common theme. While there may be isolated divergent views, the overall commitment to prioritizing the well-being and integrity of young athletes is evident across different countries.

6) Awareness of coaches/sport organisations/etc of the benefits and drawbacks of these substances

Slovenia: In Slovenia, coaches in TPV Volley and other Slovenian clubs display a high level of awareness regarding the use of doping. Coaches are required to take an exam on doping knowledge to obtain a coaching license. This approach ensures that coaches have sufficient knowledge to advise players and parents appropriately. The emphasis on obtaining a license and the commitment to education underscores a proactive stance in addressing doping issues within the coaching community.

Germany: Insights from Germany demonstrate coaches' awareness of the benefits and drawbacks of performance-enhancing substances. While acknowledging some perceived benefits, such as enhanced performance, increased strength, and faster recovery, coaches emphasize the significant costs associated with these short-term gains. These costs include health risks, potential competition bans, and damage to an athlete's reputation. The overall tone suggests a recognition of the drawbacks outweighing the benefits, highlighting the need

to discourage the use of such substances.

Portugal: Coaches in Portugal express varied opinions on the benefits and drawbacks of performance-enhancing substances. João Mário strongly asserts that there are no benefits, only drawbacks, emphasizing the secondary nature of hypertrophy. In contrast, Coach Miguel Oliveira acknowledges potential benefits from using protein and creatine as food supplements, citing advantages in recovery and muscle mass gain. Coach Manuel Jesus presents a more biased opinion, highlighting both drawbacks, such as anemia and hypertension, and benefits like increased strength and recovery from injuries.

Spain: Insights from Spain reveal varying levels of awareness among coaches. Sara Sala Alonso expresses a lack of awareness about the drawbacks, while Fernando Sala Alonso seems to associate the use of substances with addressing performance deficiencies. Roberto Sanfelix Gil, however, demonstrates awareness of the potential harm caused by these substances to both athletes and their environment. The perspectives in Spain reflect a diverse range of awareness levels among coaches.

Greece: Responses from Greece mirror those from Germany, indicating coaches' awareness of both the benefits and drawbacks of performance-enhancing substances. Coaches acknowledge the short-term benefits, such as enhanced performance, increased strength, and faster recovery. However, the emphasis is consistently placed on the significant costs, including health risks, potential competition bans, and damage to an athlete's reputation. The overall tone underscores a general awareness among coaches regarding the potential risks and disadvantages, emphasizing the need for caution and informed decision-making.

The consolidated insights highlight a commendable level of awareness among coaches across different countries regarding the benefits and drawbacks of performance-enhancing substances. The proactive measures in Slovenia, such as mandatory exams for coaching licenses, showcase a commitment to educating coaches. The consensus on the significant costs associated with these substances, including health risks and damage to athletes' well-being and reputation, underscores the importance of discouraging their use. The varied opinions in Portugal and Spain highlight the diversity of perspectives within the coaching community, reinforcing the need for ongoing education and a unified approach to addressing doping issues.

7) Alternatives to chemical doping

Slovenia: In Slovenia, J. Vernig emphasizes legal and holistic alternatives to chemical doping, including a correct and balanced diet, mental health, and sufficient sleep. The focus is on educating young athletes and parents about healthy nutrition, discouraging reliance on fast food, and promoting the consumption of carbohydrates, protein, fruits, and vegetables.

Supplements like vitamins and minerals are acknowledged as beneficial but should not substitute a well-rounded diet. The emphasis is on sustainable lifestyle choices that contribute to overall athlete well-being.

Germany: Insights from Germany reveal a unanimous belief in legal and ethical alternatives to chemical doping. Coaches advocate for holistic athlete development, emphasizing proper nutrition, strength and conditioning programs, mental training, and coaching strategies. The promotion of hard work, resilience, and skill development is emphasized as essential components for success in sports. The responses collectively reject the need for chemical doping substances, promoting a culture that values legitimate and sustainable means to achieve athletic success.

Portugal: In Portugal, coaches express a commitment to alternatives over doping. João Mário highlights the significance of nutrition and recommends supplements like creatine. Miguel Oliveira emphasizes the use of food supplements and stimulants as alternatives, explicitly stating that he does not recommend chemical doping. Coach Manuel Jesus underscores the importance of good rest and a balanced diet as essential elements for achieving good sporting results. The emphasis is on legal and natural methods to enhance performance.

Spain: Insights from Spain suggest a focus on legal and beneficial alternatives to chemical doping. Sara Sala Alonso recommends nutrition fuels such as creatine and whey protein to optimize performance and recovery. Fernando Sala Alonso highlights the importance of proper rest, a balanced diet, and quality footwear as essential recommendations for athletes. Roberto Sanfelix Gil mentions caffeine, creatine supplements, and protein supplementation as well-studied substances that can improve athletic performance without being considered doping.

Greece: In Greece, C. Teligiannidis advocates for alternatives to chemical doping, including rigorous training, proper nutrition, and mental preparation. He emphasizes the importance of a balanced diet rich in protein and vitamins, with supplements cautiously used under professional guidance if needed. The message is clear: while supplements like vitamins and minerals can be beneficial, they should not replace a well-rounded diet. Fruits, vegetables, and foods rich in omega-3 fatty acids are highlighted as essential components of an athlete's diet.

The consolidated insights underscore a global commitment among coaches to legal and ethical alternatives to chemical doping. Emphasis is placed on holistic athlete development, including proper nutrition, rigorous training, mental preparation, and well-rounded coaching strategies. The rejection of chemical doping substances in favor of sustainable approaches aligns with a shared commitment to fostering athlete success through legitimate means, promoting a culture that values hard work, skill development, and overall well-being in the realm of sports.

8) Challenges in Promoting Clean Sports Practices

Slovenia: In Slovenia, the challenges in promoting clean sports practices are addressed through effective anti-doping training. Coaches and athletes, especially those competing in national championships, undergo mandatory training, which is provided free of charge. The training is designed to be engaging, employing visuals, diagrams, and practical examples, making it accessible to all stakeholders. The information is readily available on the website (<https://www.sloado.si/kategorija/za-sportnike-adel>), contributing to the successful promotion of healthy sports practices. For the interviewed coaches, a crucial step is to also include athletes younger than 14 in the training and raise awareness about the danger of doping at an early age, in a way suitable for them.

Germany: Insights from Germany reveal acknowledged challenges in promoting clean sports practices. The first respondent identifies external pressures on athletes, leading to mixed messages and a potential inclination to prioritize performance at any cost. To counter these challenges, they advocate for a robust anti-doping education program within their organization. The second respondent emphasizes the widespread nature of external pressures and temptations, citing global stories of athletes succumbing to these influences. The third respondent stresses the coach's responsibility to provide guidance and education to athletes about the importance of clean sports, recognizing pressures from various sources, including athletes striving for peak performance.

Portugal: In Portugal, the interviewees, including João Mário, Miguel Oliveira, and Manuel Jesus, express a shared opinion that, at the moment, they do not face significant challenges in promoting clean sports practices in their respective sports. They suggest that the nature of the sport may influence the difficulty level, with some sports being perceived as more challenging than others.

Spain: Insights from Spain reflect a generally optimistic view, with Sara Sala Alonso expressing that she does not face any challenges and emphasizing athletes' responsibility for their decisions and treatment of their bodies. Fernando Sala Alonso focuses on promoting clean sports practices at the individual level. Roberto Sanfelix Gil acknowledges the challenge of eliminating doping substances from the market but emphasizes the importance of individual efforts at the athlete, coach, and sports club levels.

Greece: In Greece, challenges in promoting clean sports practices are recognized, particularly in the face of external pressures or temptations for young athletes to use doping. C. Teligiannidis and T. Nikopoulos point out challenges originating from peers, coaches, or parents who may push for shortcuts to success. The acknowledgment of external influences highlights the complexities involved in maintaining clean sports practices, requiring vigilance

and education.

The consolidated insights reveal a nuanced understanding of the challenges in promoting clean sports practices. While some regions employ effective anti-doping training and education programs, others emphasize the need for continuous efforts to counter external pressures. The coaches and sports professionals recognize the importance of individual responsibility and the need for a collective effort to eliminate doping substances and prioritize clean sports practices. Continuous education, guidance, and vigilance emerge as key components to preserve the integrity of sports in the face of evolving challenges.

9) Assessment of current anti-doping rules and regulations

Slovenia: In Slovenia, participants in the survey emphasize the importance and effectiveness of the existing anti-doping regulation framework. However, the responsibility for making informed decisions about doping lies with the athletes, emphasizing the need for athletes to recognize the potential harm and for coaches to be well-informed. This perspective highlights the collaboration needed between regulatory structures and individual athlete awareness

Germany: Insights from Germany offer varying perspectives on the assessment of current anti-doping rules and regulations. While the first respondent acknowledges the necessity of these rules to uphold sports' integrity, they highlight challenges related to complexity and inconsistency, suggesting room for improvement. The second respondent expresses confidence in the robustness of the current system, emphasizing its positive impact on athletes and sports organizations. The third respondent in wrestling asserts that the rules protect both athletes and the reputation of wrestling organizations, reflecting a positive evaluation within the wrestling community. The collective perspectives suggest a recognition of the significance of anti-doping regulations, alongside considerations for enhancing simplicity, consistency, and positive impact.

Portugal: In Portugal, there is a range of opinions regarding the awareness and effectiveness of anti-doping legislation. João Mário points out a lack of dissemination and awareness, indicating the need for more information in sports beyond football. In contrast, Miguel Oliveira and Manuel Jesus have a more positive view, noting organized and well-oriented regulations. These varying perspectives highlight potential disparities in awareness and knowledge across different sports and stakeholders.

Spain: Insights from Spain indicate a perceived lack of education around doping, with Sara Sala Alonso emphasizing the need for increased awareness among athletes about the negative impacts of doping. Fernando Sala Alonso suggests more rigorous monitoring for athletes of legal age, while Roberto Sanfelix Gil expresses satisfaction with the current doping penalty rules but points out existing misinformation. The collective perspectives underscore the

importance of education, monitoring, and addressing misinformation within the Spanish context.

Greece: Participants in the Greek survey also stress the importance and effectiveness of the anti-doping regulation framework. However, E. Mpouranta suggests that rules could be stricter, pointing to a potential area for improvement. The responsibility for athletes to decide against taking drugs is highlighted, along with a call for coaches to be more informed. These insights underscore the collaborative effort needed between regulatory measures and athlete awareness within the Greek sports context.

The consolidated insights reveal a general acknowledgment of the importance of anti-doping rules and regulations in maintaining the integrity of sports. While some respondents express confidence in the current system, others highlight areas for improvement, such as simplifying rules, increasing awareness, and addressing misinformation. The collective perspectives emphasize the need for continuous education, clear communication, and collaborative efforts between athletes, coaches, and regulatory bodies to ensure effective anti-doping measures and foster a clean sports environment.

10) Effective activities and interventions for doping prevention

Slovenia: Effective interventions in Slovenia for preventing doping among young athletes involve educational programs such as workshops, mentorship, and guidance. Coaches are recognized as crucial role models, shaping young athletes' attitudes through the value of fair play, hard work, proper nutrition, and focus. Emphasizing that victory comes from a holistic approach and not shortcuts is a key message in doping prevention.

Germany: In Germany, respondents unanimously endorse educational initiatives as effective activities and interventions for doping prevention. Educational programs, workshops, and open discussions are highlighted as valuable tools for conveying the risks of doping, particularly among young athletes. The focus is on empowering athletes with knowledge, ensuring they comprehend the consequences, and providing alternatives to doping. These efforts aim to foster informed decision-making and maintain clean and ethical sports practices.

Portugal: In Portugal, there is a mixed awareness of new interventions in doping prevention. While Coach João Mário expresses a lack of awareness due to limited dissemination, Coach Miguel Oliveira mentions periodic sessions at the club and workshops by the Portuguese Football Federation to demystify misconceptions and clarify various topics. Coach Manuel Jesus is optimistic about the awareness of risks among young people, suggesting a positive impact of existing prevention efforts.

Spain: In Spain, the effectiveness of drug tests as a preventive measure is highlighted by Sara

Sala Alonso, emphasizing the consequences for athletes who test positive. Fernando Sala Alonso suggests talks by elite athletes who have tested positive can provide a more objective perspective. Roberto Sanfelix Gil recommends informative talks in schools or athletes' residences, along with examples of famous athletes sharing their experiences. Pre-competition information forms or tests are proposed as additional preventive measures.

Greece: Insights from Greece mirror those from Spain, emphasizing the effectiveness of drug tests and the importance of consequences for athletes testing positive. Fernando Sala Alonso's suggestion of talks by elite athletes who have experienced doping issues is echoed, providing an objective perspective. Roberto Sanfelix Gil recommends informative talks in schools or athletes' residences and distributing information forms or tests before competitions as valuable preventive interventions.

The consolidated insights underscore the importance of educational initiatives, workshops, and open discussions as effective activities for doping prevention. Coaches play a pivotal role in shaping athletes' attitudes and behaviors, emphasizing the values of fair play, hard work, and a holistic approach to achieving success in sports. Additionally, drug tests, talks by athletes with personal experiences, and informative sessions in schools or athletes' residences are suggested as impactful interventions to deter doping and promote clean sports practices. The collective perspectives highlight the multifaceted approach needed to address doping prevention comprehensively.

11) Effective activities and interventions for doping prevention

Slovenia: In Slovenia, the effectiveness of anti-doping programs is highlighted through regular drug testing and a commitment to strict adherence to anti-doping rules. The introduction of the ADEL online platform by WADA in 2021 enhances education and knowledge dissemination. The TPV Volley club's proactive approach, including coaches' training and collaboration, contributes to a doping-free record over more than 30 years. The technical nature of volleyball is acknowledged, indicating that doping may be perceived as less beneficial in such sports.

Germany: German respondents acknowledge the value of existing anti-doping programs while suggesting areas for improvement. Emphasizing the need for accessible and engaging information for young athletes, the first respondent suggests expanding outreach to parents, coaches, and support staff. The second respondent highlights the importance of adapting educational materials to evolving doping trends and calls for continuous improvement. The third respondent proposes interactive workshops and a mentorship system for effective anti-doping education.

Portugal: Coaches in Portugal offer suggestions to enhance anti-doping efforts. Coach João

Mário recommends targeting children aged 10 to 15, utilizing sensitive materials like videos, and incorporating training within the club. Coach Miguel Oliveira proposes more publicity actions and a merit award system for clubs practicing clean sports. Coach Manuel Jesus suggests more regular monitoring of substance use by federated athletes.

Spain: In Spain, Sara Sala Alonso recommends more frequent anti-doping programs, suggesting a semester-based schedule instead of an annual one. Fernando Sala Alonso believes the measures are adequate, and the population is aware of the consequences of illegal substance consumption. Roberto Sanfelix Gil emphasizes the need for increased visibility, advocating for introducing anti-doping education in schools, colleges, and sports clubs from an early age.

Greece: Insights from Greece align with other countries, emphasizing the importance of regular drug testing and adherence to anti-doping rules. E. Mpouranda highlights the integration of anti-doping regulations into the coaching curriculum, ensuring graduating coaches are well-informed. T. Nikopoulos advocates for comprehensive awareness campaigns and emphasizes the need to strengthen the regulatory framework, expressing concern about athletes manipulating test results.

The consolidated insights underscore the global emphasis on regular drug testing, adherence to anti-doping rules, and educational initiatives to prevent doping. Suggestions for improvement include adapting educational materials, increasing visibility through publicity, targeting specific age groups, and introducing anti-doping education in educational institutions and sports clubs. The multifaceted strategies discussed collectively aim to strengthen anti-doping programs and policies for a more comprehensive and effective approach.

3. ONLINE QUESTIONNAIRE

3.1 AIM AND STRUCTURE OF THE QUESTIONNAIRE

This survey, conducted through Google Forms, delved into several key topics, offering a detailed examination of your general characteristics, dietary habits, supplement utilization, considerations in supplement selection, awareness of doping, perceptions of doping consequences, engagement in education programs, and the assessment of the need for additional information from sports organizations, focusing on the experiences and perspectives of young athletes aged 13-25 engaged in competitive sports.

Utilizing a semi-quantitative approach, we employed a Likert scale (ranging from 1 to 5) to gather nuanced responses on various topics. This scale has allowed us to semi-quantitatively gauge the sentiments and preferences, offering a structured framework to analyze the data. Additionally, we incorporated open-ended questions to provide the target group with the opportunity to express their thoughts in greater detail and ensure a comprehensive understanding of your experiences.

After compiling it on Google Forms and translation into the national languages of the partners, a social media campaign and mailshots were implemented for wide dissemination.

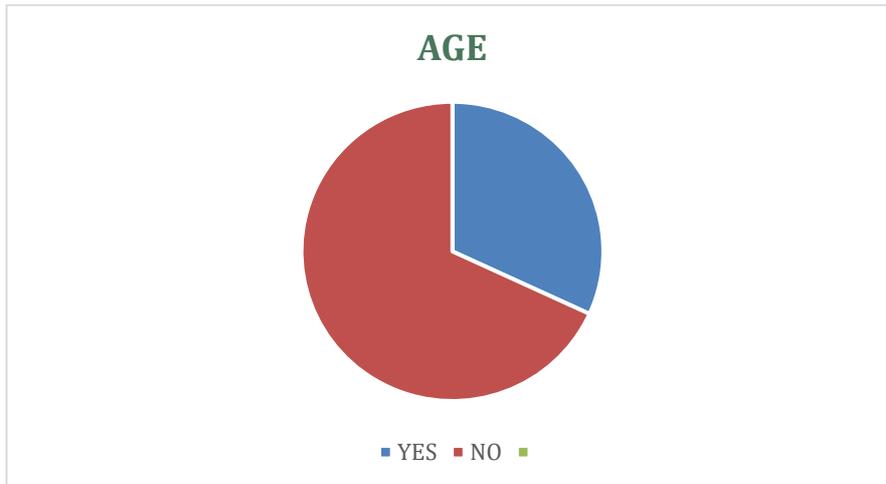
The dissemination campaign ran for several weeks with a target of 20 responses per partner country. Finally, the responses in total were 150.

Most partner organisations achieved to reach more participants in the survey. The results of the survey for each country are described below, while the questionnaire can be found under **Annex 1**.

3.2 RESULTS

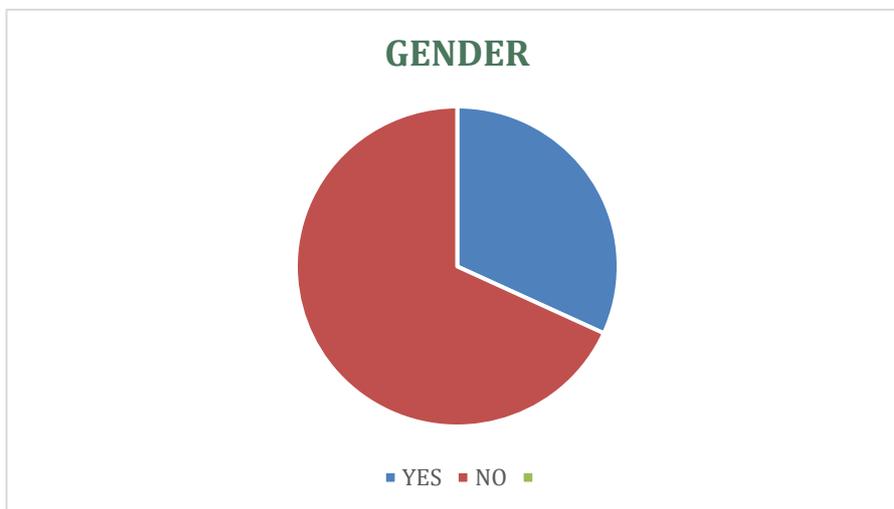
1) *General Information about Respondents*

Age Focus: Generally, there is a concentration of participants above the age of 18.



It is noted that the percentage of responses 13-15 are coming from the Slovenian survey where the target group were coming mostly from the sport organisation itself where participants are mostly in this range of age.

Gender Distribution: Varied, with some countries having most female respondents and others having a more balanced distribution.

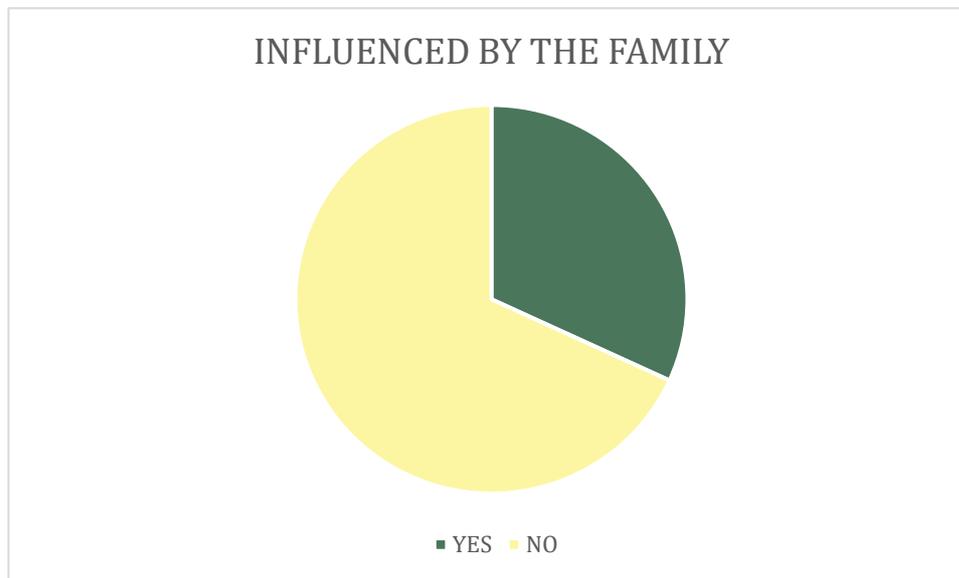


Preference Disclosure: Generally, participants were open in disclosing their age, gender, and sports preferences, with minimal use of the "prefer not to say" option.

2) About the sport practiced by the participants

A substantial portion of our participants, constituting around half, engage in popular team sports such as football, volleyball, and basketball. Notably, a notable contingent of participants (5 individuals) disclosed their active involvement in combat sports, showcasing a diverse spectrum that includes taekwondo, freestyle wrestling, karate, sparring, hapkido, and boxing.

Interestingly, the survey indicated that the majority of participants did not have their sport choices significantly influenced by their families.



This suggests that personal interests and individual preferences play a significant role in shaping the sporting pursuits of our respondents.

Moreover, a striking revelation from the survey is the high level of enjoyment reported by participants in their chosen sports. An overwhelming percentage of 91% expressed their satisfaction by choosing ratings of "5" and "4" on a scale of 1-5, where "1" signifies "not at all" and "5" indicates "very much." This robust endorsement underscores the positive experiences and enthusiasm that young athletes derive from their sporting activities, reflecting a deep sense of fulfillment and engagement within their chosen disciplines.

Moreover, about the athletes' enjoyment and **motivations in sports the answers varied:**

Diverse Enjoyment Factors:

Respondents derive pleasure from a myriad of aspects in their sports engagement. Enjoyment factors range from the adrenaline rush to the joy of playing, strategic challenges, and the thrill of scoring.

Adrenaline and Competitive Nature: A significant number of athletes find joy in the adrenaline rush and the competitive nature of their sport. The thrill of games and the excitement of scoring or making a great play contribute to their overall satisfaction.

Physical Fitness and Energy: The physical fitness and energy provided by their chosen sport are key sources of enjoyment. Participants appreciate the positive impact on their overall well-being and the fitness benefits.

Intellectual and Strategic Appeal: Some respondents highlight the mental and strategic challenges, enjoying the logic behind every move and the tactical elements of their sport. Intellectual engagement and strategic thinking contribute to their satisfaction.

Teamwork and Camaraderie: The sense of teamwork, camaraderie, and lifelong friendships fostered in sports play a pivotal role in participant enjoyment. The collaborative nature and positive relationships with teammates are significant aspects.

Victory and Achievement: Many athletes express a deep enjoyment in the feeling of victory, the sense of accomplishment after a game, and the lessons in teamwork and sportsmanship. Winning, achieving victory, and the pride in representing their team are highly cherished.

Personal Growth and Discipline: Respondents value the discipline, structure, and positive impact on their overall well-being that their sport brings. Some mention the sense of purpose, dedication, and personal growth achieved through their sporting activities.

Passion and Fun: Athletes find joy in pursuing their passion, having fun, and enjoying quality free time. The satisfaction derived from doing what they love and making a living from it is highlighted by some respondents.

Emotional Well-being and Relaxation: Sports serve as a means of emotional well-being, offering a calming and stress-relief effect. Engaging in sports helps participants forget daily worries, think, and sleep pleasantly.

Individual and Team Achievements: Individuals express joy in personal achievements, such as learning new skills or making successful plays. The sense of accomplishment is often linked to individual progress and improvement.

Connection with Others: Enjoyment is derived from the company of teammates, playing with others, and engaging in sports as a collective effort. Building connections, both with fellow athletes and the larger sports community, adds to the satisfaction.

Specific Sport Appeals: Some respondents mention specific elements of their sport, such as the relationship with a horse, the technical aspects, or the completeness of the activity.

About participants' **willingness to improve and their commitment to excellence:**

On-Field Practices: Respondents express a strong willingness to practice harder, work more, and develop a pre-game routine to enhance their skills. A commitment to strengthening core skills, adapting to different roles, and setting personal benchmarks is evident.

Team Collaboration: Communicating more with team players, building team chemistry, and adjusting to different roles highlight the importance of teamwork and adaptability. Attendees of sports camps emphasize the value of collective learning and shared experiences.

Learning from Others: Listening to experienced players and seeking guidance from mentors are viewed as essential for personal development. A commitment to adapt to new strategies and learn from losses demonstrates a growth mindset.

Knowledge Enhancement: Respondents express a commitment to studying opponents' tactics, attending seminars, and staying informed about trends to remain competitive. The pursuit of new ideas and a dedication to continuous learning are evident.

Lifestyle Adjustments: Many athletes are willing to make lifestyle adjustments, including proper nutrition, planned training, and abstaining from indulgences like

alcohol and fast food. Commitments to extra fitness training, cutting all-nighters, and maintaining a healthy lifestyle are highlighted.

Personal Sacrifices: A willingness to make sacrifices, such as giving up certain pleasures, emphasizes discipline and dedication. Commitments to avoid clubbing, maintain a consistent sleep pattern, and engage in physical activities at home showcase a holistic approach to self-improvement.

Specialized Focus: Athletes express a desire to improve specific aspects of their game, such as passes, skills, speed, positioning, and plays. Some participants mention attending special courses and engaging in extra training sessions for targeted skill improvement.

Individualized Approaches: While many express a commitment to various forms of improvement, some athletes appreciate their current routine and emphasize enjoyment over intensive changes. A recognition that personal enjoyment and health maintenance are key aspects of their sporting pursuits.

Based on the above, the survey reveals a rich tapestry of enjoyment factors, ranging from the thrill of competition to personal growth, camaraderie, and the fulfillment derived from various elements unique to each athlete's chosen sport. Also, athletes demonstrate a strong commitment to self-improvement, encompassing both on-field practices and lifestyle adjustments. This commitment reflects a holistic approach to excellence, emphasizing teamwork, continuous learning, and a dedication to physical and mental well-being.

A noteworthy trend has emerged from the survey, indicating that a substantial majority of participants, specifically 112 out of 150 individuals, express a high degree of seriousness and commitment towards sports competition. When asked to rate their level of engagement on a scale of 1-5, with 1 representing minimal importance and 5 indicating a significant emphasis on competition in sports, these individuals consistently chose the upper ends of the scale (4 and 5). This clear inclination towards higher values underscores a prevalent and robust attitude of taking sports competition seriously among the surveyed participants.

2) Dietary requirements and supplement utilization

Participants - athletes in the survey seem to recognize the multifaceted nature of their nutritional needs, considering both macro and micronutrients, meal timing, hydration, and individualized dietary preferences. The responses reflect a holistic approach to nutrition, emphasizing the role of diet in supporting performance, recovery, and overall well-being.

Here's a consolidated overview of their responses:

Macro and Micronutrient Focus: Participants emphasize the importance of a balanced diet comprising carbohydrates, proteins, fats, vitamins, and minerals. The focus on macronutrients includes a significant emphasis on protein for muscle repair, carbohydrates for energy, and healthy fats for endurance.

Specific Food Choices: Athletes incorporate lean meats (chicken, fish), eggs, dairy, whole grains, and fresh fruits and vegetables to meet their nutritional needs. Foods rich in fiber, nuts, and seeds are mentioned for digestion and sustained energy.

Hydration and Electrolytes: Hydration is a key aspect, with water consumption highlighted as essential. Electrolytes are recognized for maintaining balance, especially during intense physical activities.

Supplements and Specialized Foods: Some athletes incorporate supplements such as creatine, emphasizing their potential benefits. Foods with specific nutrients like potassium and magnesium are included in their diets.

Meal Timing and Planning: Consideration is given to meal timing, with specific plans before games, including pasta with tuna. Eating well before training is a common practice, indicating the importance of fueling appropriately for performance.

Adaptation to Individual Preferences: Responses vary based on individual preferences, with some athletes focusing on a variety of foods, while others highlight specific nutritional components like protein, caffeine, and potassium. Individualized dietary approaches are noted, emphasizing the importance of adapting to personal needs and nutritionist advice.

Caloric Intake and Weight Management: The importance of caloric intake is acknowledged, especially considering the high energy expenditure during sports

activities. Some athletes have specific plans to consume more calories to support their training and put on weight if necessary.

Conscious Lifestyle Choices: A conscious effort is made to avoid foods that are high in fat, easy to digest, or low in nutritional value. Participants express a commitment to a healthy lifestyle, with attention to diet variety and good quantities.

Also, athletes' supplement usage varies widely, encompassing common choices like **protein and creatine**, as well as individualized selections based on specific health considerations and training goals. The responses demonstrate a nuanced approach to supplement intake, with some athletes choosing not to use any supplements at all. A consolidated overview of the main responses are described below:

Protein Supplements: A common supplement among athletes is protein powder or protein supplements, emphasizing the importance of protein intake for muscle support.

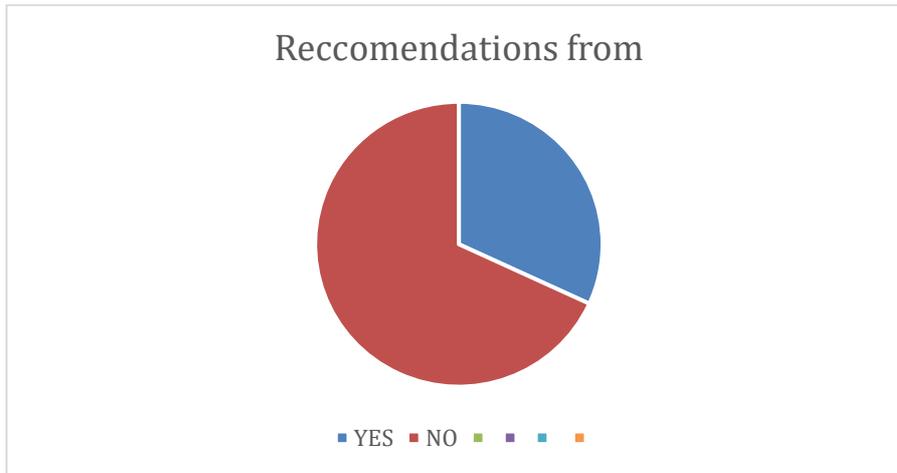
Amino Acids and Creatine: BCAAs (Branched-Chain Amino Acids) and creatine are frequently mentioned, highlighting their role in muscle recovery and performance enhancement.

Vitamins and Minerals: Athletes incorporate various vitamins and minerals into their regimen, such as Vitamin D, Omega-3 fish oil, Zinc, Magnesium, Vitamin B6, and multivitamins.

Specialized Supplements: Some athletes use specific supplements tailored to their needs, including electrolyte tablets, iron (for addressing deficiency), and melatonin (for sleep).

3) Influential factors and concerns in supplement selection

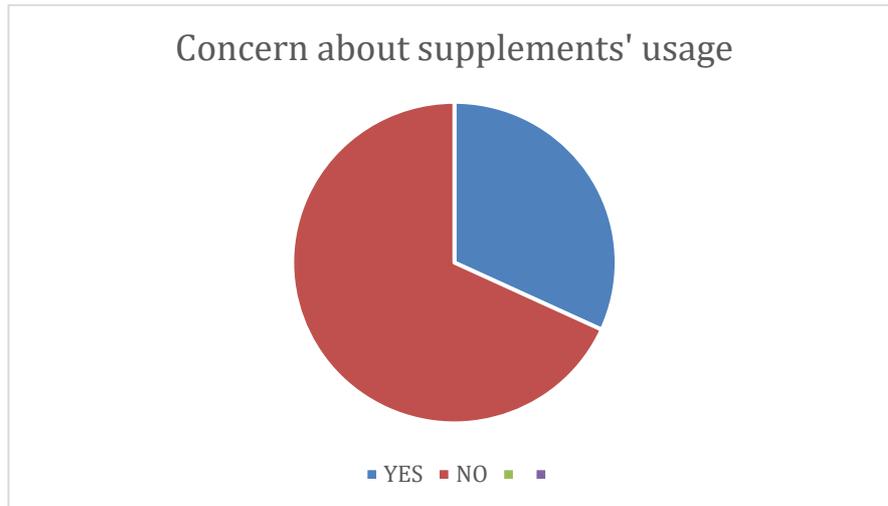
The majority of the responders depend their choice of supplements on their coach or trainer. Less number depends on specific scientific resources.



Individuals' approaches to supplement usage are diverse, ranged also from parental guidance and healthcare knowledge to personal autonomy and, in some cases, a deliberate choice to abstain from supplements, as some responses from Slovenia shown under “other source”.

This diversity underscores the varied factors that influence athletes' decisions regarding their dietary and supplementation practices.

Moreover, a clear consensus emerges among the majority of participants, indicating that their **primary apprehensions regarding the use of supplements** revolve around safety and potential side effects. Safety considerations, encompassing the overall well-being and health impacts of supplement consumption, rank as the foremost concern. Additionally, a significant proportion of participants express concern regarding the potential medical health implications associated with supplement usage. This underscores a heightened awareness and scrutiny towards how supplements may interact with one's medical condition or overall health status. Conversely, participants appear less preoccupied with the legal aspects of supplement usage in sports, suggesting a general confidence or lack of major apprehension regarding the legality of the supplements they may choose to incorporate. Similarly, the financial aspect, represented by the prices of supplements, does not emerge as a prominent concern among the surveyed athletes.

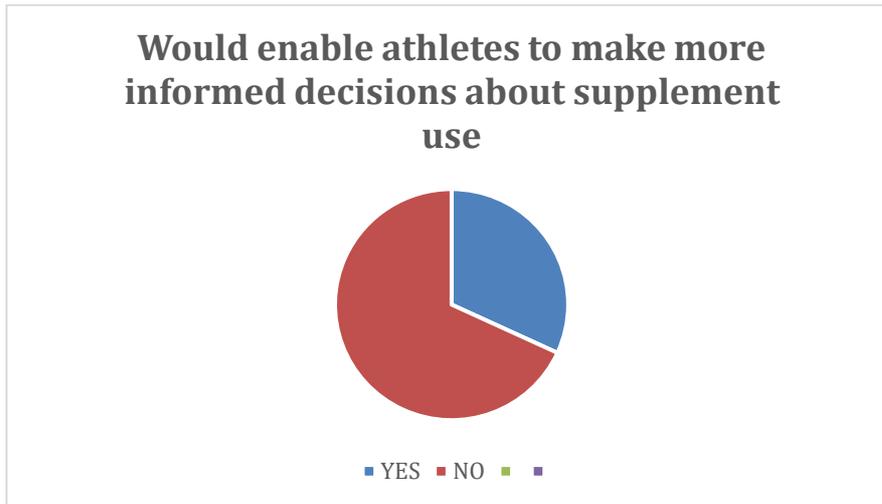


Regarding what would enable participants – athletes to make more informed decisions about supplement use, they collectively expressed a desire for more **informed decision-making regarding supplement usage**.

Key points include:

Sporting Organizations' Guidance: Participants expressed a need for increased guidance from sporting organizations. This suggests a reliance on authoritative bodies within the sports domain to provide comprehensive and standardized information.

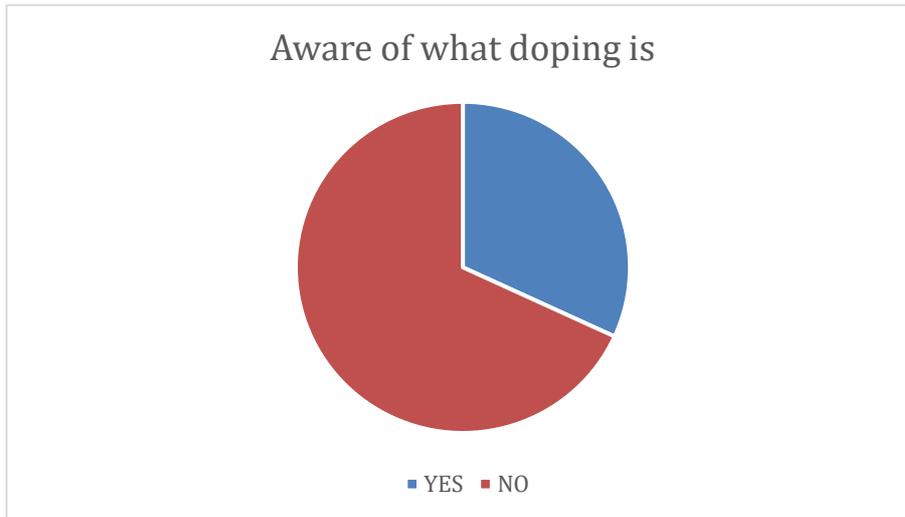
Scientific Investigation and Information: There is a consensus among participants regarding the importance of more scientific investigation and information. This reflects a desire for evidence-based insights to inform their decisions, emphasizing the need for robust scientific research in the field of sports supplementation.



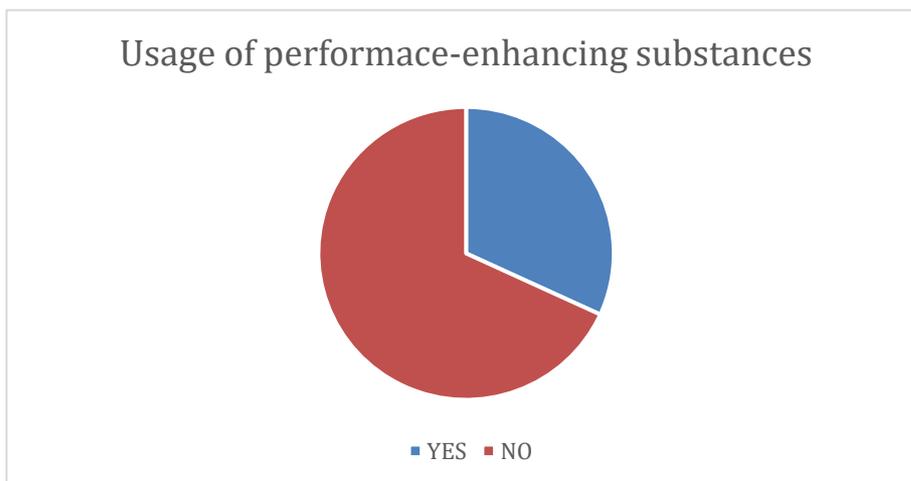
One participant highlighted a critical need for more comprehensive research on supplements, emphasizing the importance of investigating both positive benefits and potential negative effects. The participant stresses the necessity for research to be published, especially focusing on the side effects and potential health damage that supplement use may entail.

4) Understanding of doping and perceptions of doping consequences

A robust awareness of doping is evident among the surveyed participants, with an overwhelming majority demonstrating familiarity with the concept. Out of the 150 respondents, a mere 10 individuals, constituting a negligible percentage, indicated a lack of awareness by choosing "no" in response to the question about familiarity with doping. This high level of awareness suggests a widespread understanding among the participants regarding the implications and issues associated with doping in the realm of competitive sports.



Out of the 150 participants surveyed, a notable 19 individuals candidly acknowledged having used performance-enhancing substances. This response, while representing a minority within the sample, sheds light on the existence of a subset of athletes who have opted for or experimented with such substances to enhance their athletic performance. The disclosure by these participants provides valuable insights into the complexities surrounding the use of performance-enhancing substances within the surveyed cohort.



Slovenia: The majority of participants (57%) in Slovenia rated the level of awareness among young athletes about the benefits and risks of performance-enhancing substances as 'neutral' (3rd level). Other responses included 7% at the 2nd level, 5% at the 4th level, 3% at the 1st level, and 1% at the 5th level. The high prevalence of

the 'neutral' rating suggests a widespread perception of average awareness. The relatively low percentages at the extreme ends of the scale indicate a more centered viewpoint among Slovenian participants.

Germany: In Germany, perceptions of awareness among young athletes are diverse. While 30% perceive a very low or low level of awareness, a majority of 45% believe that the awareness is high to very high. This suggests differing opinions on the effectiveness of existing education and awareness programs. The diversity in responses in Germany, with a significant portion perceiving low awareness and a majority indicating high awareness, underscores potential disparities in the effectiveness of current educational initiatives. This divergence calls for a targeted approach to bridge informational gaps.

Portugal: A significant portion (37.8%) of participants in Portugal indicate a mid-level or average awareness (level 3) regarding the benefits and risks of performance-enhancing substances. The results also highlight a mid-level discrepancy, indicating varied opinions on awareness among athletes. The mid-level discrepancy in Portugal, with almost 38% indicating average awareness, reflects a balanced mix of opinions. This suggests a need for nuanced educational strategies that cater to varying levels of understanding among young athletes.

Spain: In Spain, the 'neutral' rating (3rd level) was the most common, with 32.1% of respondents selecting it. Additionally, 21.4% rated awareness at the 1st and 2nd levels, while 46.4% indicated higher awareness levels at the 4th and 5th levels. The substantial percentage (46.4%) of respondents in Spain perceiving higher awareness levels indicates a positive outlook. However, the presence of a notable portion at lower awareness levels highlights a need for targeted interventions to address potential gaps.

Greece: In Greece, the 'neutral' rating (3rd level) was again the most common, with 45% of respondents selecting it. Additionally, an equal number of participants (four in each case) opted for the 1st and 4th levels of awareness. The equal distribution of responses between the 'neutral' rating and the 1st and 4th levels in Greece suggests a varied perception of awareness. This may necessitate efforts to ensure a more consistent understanding of the benefits and risks of performance-enhancing substances.

The 'neutral' rating emerges as a common response across countries, indicating a perceived average level of awareness among young athletes about performance-enhancing substances. Diverse opinions and variations exist, with participants in each country expressing different perspectives on the awareness levels, emphasizing the need for tailored education and awareness programs. Finally, the responses collectively highlight the complexity and variability in perceptions of awareness among young athletes, underscoring the importance of targeted efforts to address gaps in knowledge and understanding.

5) Consequences for Athletes Caught Doping

Banned from Competition: A common response across participants was the expectation of athletes being banned from competitions as a consequence of doping. This reflects a collective emphasis on maintaining fair play and integrity in sports.

Health-Related Consequences: Numerous responses highlighted concerns about health problems as a consequence of doping. Participants expressed worries about athletes getting sick, facing intense ups and downs impacting their health, and potential long-term health issues.

Legal and Punitive Consequences: Legal repercussions were mentioned, including punishment, exclusion from team activities, and legal consequences. Some participants associated doping with injuries, chronic diseases, and the need for legal actions.

Long-Term Impact on Sports Career: Several participants indicated that being caught doping could have long-term consequences for an athlete's career, potentially leading to the end of their professional sporting journey.

Exclusion and Lack of Credibility: Exclusion from competitions and a lack of credibility were cited as potential outcomes. Respondents expressed the view that being caught doping could result in athletes losing their professional status and facing economic fines.

Educational Initiatives: Some responses called for more education to raise awareness about the consequences of doping. This suggests a recognition of the importance of informed decision-making among athletes.

Psychological and Physical Consequences: Mental health concerns were raised, with references to psychological and physical consequences. The potential risk to an athlete's mental well-being was acknowledged in addition to the physical repercussions.

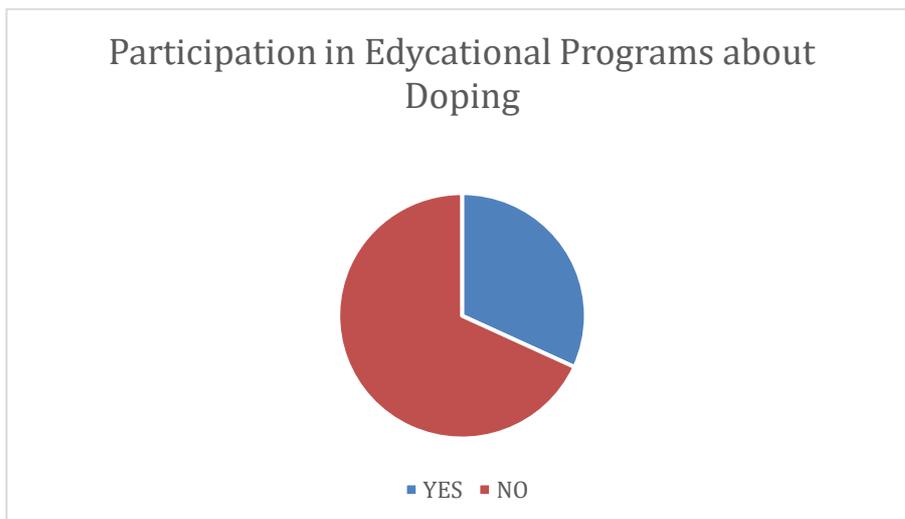
Uncertainty and Lack of Knowledge: A recurring theme was the acknowledgment of uncertainty among respondents, with phrases like "I don't know" or "It is not clear to me." This indicates a need for more information and clarity on the consequences of doping.

The responses collectively underscore the importance of maintaining integrity in sports and the need for comprehensive education on the consequences of doping.

6) Participation in education programs

The fact that 70% of the participants have never participated in an educational program about doping suggests a significant gap in the awareness and knowledge of anti-doping measures among a considerable portion of the surveyed population. This finding raises important questions about the overall effectiveness of current educational initiatives or the accessibility of anti-doping programs within the sports organizations represented by the participants.

The lack of exposure to educational programs could potentially result in a limited understanding of the consequences of doping, the importance of clean sports, and the role of athletes in maintaining the integrity of competitions. Addressing this gap becomes crucial for promoting fair play, ethical conduct, and a level playing field among athletes.



Out of 37 participants in Slovenia, 22 individuals (62%) stated that they have received education or training about doping and its consequences. This suggests a majority of participants have undergone some form of anti-doping education. Notably, 14 participants who are under 14 years old mentioned that they did not receive any form of training from their sport organization. This represents a potential gap in awareness and preparedness among a specific age group. It's important to acknowledge that the target group of participants in this survey is from the sport organization, and they have received training as part of the mandatory requirements. This implies that the participants from the sport organization are generally well-informed about doping and its consequences.

Finally, the majority of participants expressed a desire for more information about performance-enhancing substances from their organizations, indicating a need for additional education and awareness on this topic. This suggests that the majority of athletes feel that their organizations should play a proactive role in providing comprehensive information and education about performance-enhancing substances.

4. BEST PRACTICIES

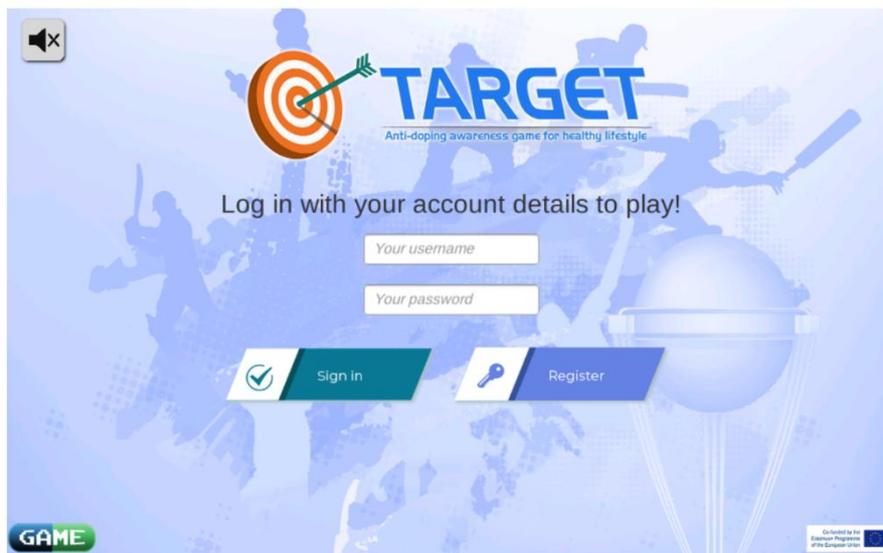
4.1 GREECE

1) GAME Erasmus+ Project

The project named “GAME” under the coordination of the Aristotle University of Thessaloniki, addresses the need to advance anti-doping education intervention targeting competitive and recreational athletes. Project GAME recognizes the need to move forwards and transform the way anti-doping education is designed, delivered and evaluated. Project GAME contributes to the fight against doping in the following ways: It provides a serious game that is expected to reach wider audiences than typical anti-doping education campaigns.

It utilises an innovative educational approach in teaching adolescents and young athletes. It produces a report on evidence-based policy recommendations in order to improve existing policies against doping in amateur sport.

In the framework of the project, the game TARGET is mainly a telltale serious game using realistic scenarios to engage users in critical situations which will help them to change behaviors and perspective towards anti-doping awareness. To this direction, the game classifies users into amateur and elite athletes, offering four different scenarios in each level, corresponding to four different learning indicators (knowledge, self-efficacy, moral displacement, and attitudes). Each scenario describes a unique story where the user must take critical decisions and make the appropriate choices, in order to succeed and score as many points as possible.



Project's website: <http://projectgame.phed.auth.gr/>

2) SAFE YOU - Strengthening the Anti-doping fight in Fitness and Exercise in Youth+ Erasmus

Safe You+ is the continuation of the Safe You project, coordinated by the Aristotle University of Thessaloniki. The consortium of the Safe You co-created with adolescents and young adults an innovative, web-based education tool (SAFE YOU Tool) against doping. The team also developed a 'train the trainers' approach to teach educators and other professionals and stakeholders how to use the SAFE YOU Tool to effectively design, implement, and evaluate anti-doping interventions and educational campaigns for young people in fitness/amateur sports. The SAFE YOU tool targets adolescents and young people and is expected to be used as an educational resource for anti-doping interventions and educational campaigns by educators, policy-makers, and other relevant stakeholders in the fight against doping in fitness/amateur sports. In the framework of the Safe You+ project the SAFE YOU app was also launched. On the Website of the project, there are further educational resources for facilitators and athletes.

SAFE YOU+ smartphone application





**MUSCLE
GROWTH &
STRENGTH**

**WEIGHT
LOSS & FAT
BURNER**

ENDURANCE

**STIMULANTS
& ENERGY
BOOST**

ANABOLIC ANDROGENIC STEROIDS (AAS) ARE SYNTHETIC VERSIONS OF THE HORMONE TESTOSTERONE. TESTOSTERONE IS A MALE SEX HORMONE FOUND IN LARGE QUANTITIES IN MOST MALES AND SMALLER AMOUNTS IN FEMALES. THE ANABOLIC EFFECTS CAN RESULT IN AN ACCELERATED GROWTH OF MUSCLE AND BONE. ATHLETES MAY BE TEMPTED TO USE ANABOLIC STEROIDS TO INCREASE MUSCLE SIZE AND STRENGTH, REDUCE THE AMOUNT OF TIME REQUIRED TO RECOVER AFTER EXERCISE, AND TO TRAIN HARDER AND FOR A LONGER PERIOD OF TIME ALLOWING THEM TO COMPETE AT THE HIGHEST LEVEL IN SPORTS RELATING TO STRENGTH, POWER, BODYBUILDING AND STAMINA ACTIVITIES.

[LIST SUBSTANCES](#)



Enter your search term

ANABOLIC ANDROGENIC STEROIDS (AAS)

[LIST OF SUBSTANCES](#)

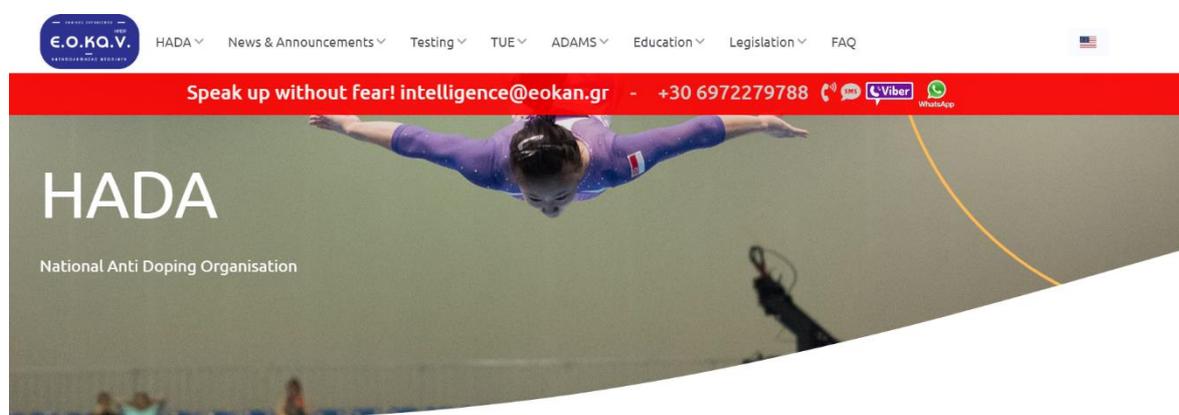
IPAMORELIN	➤
MOD GRF 1-29	➤
BOLDENONE UNDECYLENATE	➤
BUSERELIN	➤
CHLORODEHYDROMETHYLTESTOSTERONE	➤
CJC-1295	➤
CLOMIPHENE	➤
CORTICORELIN	➤
CORTICOTROPIN	➤
CYCLOFENIL	➤
DROSTANOLONE PROPIONATE	➤
ESTRA-4,9,1-TRIENE-3,17-DIONE	➤
FLUOXYMESTERONE	➤

Project's Website: <https://www.safeyou.eu/>

3) Hellenic Anti-Doping Agency (HADA)

In 1999 the establishment of the World Anti Doping Agency (WADA) (with headquarters in Montreal, Canada) under the International Olympic Committee (IOC) and with the support and co-financing of intergovernmental organisations, governments, public authorities and other public and private bodies led to the constitution of National Anti Doping Agencies. In this context, the National Council for Combatting Doping (ESKAN) was established in Greece under the Law 2725/99 (article 128). ESKAN consisted of nine members with a three year term, including lawyers with knowledge of sports or doping, scientists and prominent sports people. Later, under the Law 4049/12 (article 11), the National Organisation for Combatting Doping (EOKAN), successor of ESKAN, was established as a legal person under private law by presidential decree. The international term for the organization is HADA (Hellenic Anti-Doping Agency).

In the website of the HADA, among others, there are useful education resources, information about the legislation of doping, and updated announcements and news.



Sports make our lives more beautiful and interesting. Both team and individual sports create unique feelings and offer us really special moments. They provide an escape from ordinary life and create positive role models for young people, keeping them away from bad habits.

Website: <https://www.eokan.gr/lang/en>

4.2 GERMANY

1) Project Jann

Determinants of performance and performance indicators of National Anti-Doping Organizations The project will analyze the prerequisites for high performance of NADOs in creating a doping-free environment for athletes at different levels both in organized and in unorganized sports. By studying five NADOs in different European countries (Germany, United Kingdom, Norway, the Netherlands and Austria), recommendations should be made to improve existing prevention strategies in all anti-doping organizations. The analysis will firstly identify the determinants of organizational performance of NADOs. For that purpose the study relies on five more detailed key aspects that influence the performance of public sector organizations in general, namely: resources, regulations, organizational structures, management practices and market structures. Starting from these factors, it will identify indicators suitable to measure and map the differences between the concerned NADOs relating to the mentioned factors and thereby giving an overview about differences in possible sources that can explain the expected performance disparities. The second step of the project is the conceptualization of a performance benchmark of selected NADOs. This benchmark provides answers to the questions of how effectively NADOs prevent athletes from using performance enhancing drugs and how they control and sanction the use of prohibited drugs in a comparative perspective at the elite and non-elite level. Furthermore this benchmark should give incentives for other NADOs to participate in these performance comparisons. As a third, the linkage between input, output and outcome will be analyzed which allows us to assess whether environmental and internal factors (i.e. resources, regulation, market structure, organization, management) of NADOs in different countries correlate with their performance data. The analysis of these variances can reveal distinct explanations for the identification of performance patterns. The closer scrutiny of these relations will provide further insights into the causes of success or failure of anti doping programs. These explanations will identify concrete conditions that are conducive for a successful NADO. Such information is highly important for the appropriate and cost-effective funding for all NADOs (and other stakeholders of the World Anti-Doping Program), both inside and outside the European Union. Finally, conclusions, best practices and recommendations can be drawn for further improvements in the design and implementation of anti doping programs. These insights will be shared with WADA and all known NADOs, thus enabling a more effective anti-doping fight. The five participating NADOs will play an active role in disseminating the final results and the implications for doping prevention. The collaboration between public administration, political science, sports science and anti-doping specialists as well as the cooperation between a University and five NADOs offers

a unique opportunity to combine the insights of the different disciplines and of scientists and practitioners.

2) National Anti Doping Agency of Germany (NADA Germany)

The National Anti Doping Agency of Germany is the key body for clean sports in Germany. NADA Germany was founded in July 2002 and introduced with a festive ceremony in the city of Bonn's historic town hall Altes Rathaus. On November 21st of the same year, NADA Germany was officially recognised and approved by the relevant supervisory authority for foundations. Ever since, NADA Germany has been striving to realise its foundational goals and stands for fairness and equal opportunities in sports. As a non-profit foundation by civil law, NADA Germany is an independent body. Since January 2020 its funding is based on the institutional funding by the German state. Today, NADA Germany has become the centre of competence for anti-doping activities in Germany and unites all forces for doping-free sport in a single organisation. NADA Germany's anti-doping work is based on two pillars. In addition to an effective testing programme, preventive measures and offers are fundamental for the overriding goal of clean performance by athletes.

3) NO2DOPING project

Doping, or the use of banned substances to enhance performance, is a prevalent phenomenon in sports, and has negative consequences both for athletes and for the integrity of sports in society. Therefore, it is essential to develop evidence-based interventions that aim to reduce doping intentions in young athletes. The purpose of this study is the development, implementation, and evaluation of a psychosocial intervention program that focuses on values-based variables. In previous research, moral disengagement as well as moral atmosphere were identified as predictors for doping intentions (Kavussanu, Elbe und Hatzigeorgiadis, 2015) and are therefore the variables that the intervention tries to manipulate. The sample will consist of 200 male and female athletes from team- and individual sports, aged between 13 and 19 years. A group of 80 athletes will receive the psychosocial intervention during a 6-week intervention phase. Meanwhile, another group of 80 athletes will receive a standard knowledge-based intervention and a control group of 40 athletes will no intervention. Doping intentions will be measured through hypothetical doping scenarios whereas the above-mentioned moral variables will be assessed through questionnaires. Using an experimental design with pre-test, post-test, and follow-up, we aim to investigate the effect of the psychosocial intervention on doping intentions of young athletes. Based on the results of this study we plan to draw implications for instruction in elite sport schools and produce a manual that teachers can use for a value-based doping prevention. (<https://www.spowi.uni-leipzig.de/en/sport-psychology/research/no2doping#c340258>)

4.3 SLOVENIA

1) ADEL - ANTI-DOPING ONLINE PLATFORM FOR EDUCATION AND LEARNING

In January 2021, the World Anti-Doping Agency (WADA) presented the new online platform ADEL, dedicated to anti-doping education and learning, which offers athletes and their supporting staff comprehensive and in-depth knowledge of anti-doping content. The Olympic Committee of Slovenia - Association of Sports Federations included mandatory e-education for athletes aged 14 and over in the Conditions, rules and criteria for registering and categorizing athletes in the Republic of Slovenia from 15 December 2020 for obtaining a competition license.

The ADEL educational programs, which consist of e-learning and a manual on the important changes of the Codex, are intended for different target groups.

For athletes:

- Educational program for athletes between 14 and 17 years old
- Educational program of athletes at the national level ·
- Education program of athletes at the international level

REFRESHMENT COURSES FOR ATHLETES:

Refreshment courses are available for users who have completed a course for athletes at national or international level. The course is intended to refresh knowledge and new content related to changes in anti-doping rules. It consists of interactive, short content, where the user can choose between different topics and thus renew their knowledge and acquire important new information. Refreshment course for athletes at international level
Refreshment course for national-level athletes

For coaches:

Educational program for coaches of top athletes - intended for coaches of all categories

REFRESHMENT COURSE FOR COACHES:

A renewal course is available for users who have successfully completed the Elite Athlete Coaching Training Program and whose certification is about to expire. The course is intended to refresh knowledge and new content related to changes in anti-doping rules.

For parents of young athletes:

Educational program for parents of prospective athletes - recommended to all parents who have athlete children under the age of 20

2) 100 GIRLS SET ON THE RIGHT TRACK PROJECT - EDUCATIONAL WORKSHOPS

For more than 20 years, TPV VOLLEY Novo mesto has been implementing the 100 Girls Set On The Right Track project. With various contents such as inter generational bonding through sport, socialization through sport, fair play in sport, sport as a tool for inclusion, lectures on the importance of a healthy lifestyle, the pitfalls of doping and approaching current topics such as international mobility and volunteering, the empowerment of girls, and on the other hand, creative cooking workshops, with a holistic approach we want to enable young girls to grow up into successful, elegant, healthy, positive and good people with a positive self-image.

Every year we organize 10 workshops in which 100 girls are involved, in recent years over 200. One of the workshops is always dedicated to athlete nutrition. After a short theoretical introduction to what sports nutrition is (is a branch of nutrition and dietetics that focuses on athletes and people who practice elite-level sports. Since these people have nutritional needs beyond those of the general population, there is a figure of sports nutritionist to help them achieve their goals), we have a cooking workshop where we invite an experienced chef to cook a menu suitable for athletes. We use the kitchen of the Youth Center Oton, volleyball players are assistants and are actively involved in the whole process. The girls actively participate and learn cooking skills and what nutritional needs does the athlete have.

As it is a fun event, girls love to attend the workshop. They acquire new knowledge in a fun way.

3) Simčič's symposium on nutrition and sport

Symposium in memory of the deceased nutrition professor ddr. Marjan Simčič is organized every year by active students of the Faculty of Biotechnology in the final year of the Master's study program Nutrition.

Under mentor-ship of PHD engineer in food technology Evgen Benedik, who is partly employed at the Pediatric Clinic of the University Clinical Center Ljubljana as a clinical dietitian and partly at the Faculty of Biotechnology of the University of Ljubljana as a clinical dietetics lecturer. He is the founder and owner of the Nutrition Programming Institute. He has extensive experience in the field of nutritional counseling. He is also an active member of various prominent domestic and foreign professional and scientific associations.

Participation in the symposium is free for all, so that all sports organizations can participate. The aim is to raise awareness of new research, knowledge and new

methodologies among athletes, coaches, parents and sports organizations. The lecturers are experienced professors and scientists who have been working in this field for many years

On Tuesday, September 5, 2023, from 4:00 p.m. to 10:00 p.m. in the Hall of Prof. dr. Janez Hribar at the Faculty of Biotechnology of the University of Ljubljana held the 6th Simčič Symposium on Nutrition and Sport. The event also took place in a virtual version at the same time.

The participants of the symposium learned about the importance of nutrition for both recreational and elite athletes. Sports dieticians also presented their work, and even the Olympic judo champion will give a speech.

A properly balanced athlete's diet improves muscle mass, endurance, speed and reduces the possibility of injuries. When an athlete's energy intake is too low in relation to consumption, we are talking about a condition called relative energy deficit syndrome (RED-S). The lecturers will specifically present what this is and how to avoid it.

The lecturers will address other topics, among other things, they will define sports nutrition and nutritional supplements for athletes - what they really need and what they don't.

Symposium in memory of the deceased nutrition professor ddr. Marjan Simčič is organized by active students of the Faculty of Biotechnology in the final year of the Master's study program Nutrition.

Participation in the symposium also brings license points of the Medical Association and the Association of Medical and Midwifery Care of Slovenia.

4.4 PORTUGAL

1) Portuguese Institute of Sport and Youth (Instituto Português do Desporto e Juventude - IPDJ)

IPDJ is a governmental organization in Portugal responsible for promoting and regulating sports and youth activities. They were actively involved in anti-doping efforts, working to ensure that Portuguese athletes comply with international anti-doping standards. They collaborate with international anti-doping organizations to implement effective anti-doping policies in sports.

For example: IPDJ collaborates with various sports organizations and institutions to organize workshops and training sessions for athletes, coaches, and sports officials. These sessions focus on educating participants about the dangers of doping, the importance of

fair play, and the specific rules and regulations related to anti-doping. By providing education and awareness, IPDJ aims to ensure that athletes are well-informed about the consequences of doping and are encouraged to compete cleanly.

IPDJ also has a Doping Analysis Laboratory (Laboratório de Análises de Dopagem – LAD): The Doping Analysis Laboratory (LAD) is one of the national anti-doping bodies along with the Portuguese Anti-Doping Authority (ADoP) and the Anti-Doping Disciplinary College (CDA). It is a unit with technical and scientific autonomy that works alongside the IPDJ, and its competences are defined in Law no. 111/2019. Its first accreditation was granted by the IOC in 1987, and its competence has been continually recognised at national and international level. Since then, the laboratory has grown in tandem with political and social awareness of doping issues in Portugal and around the world.

With the creation of the World Anti-Doping Agency (WADA/AMA), an independent international organisation made up of and funded in equal parts by the sports movement and the world's governments, this organisation has been given the responsibilities of scientific research, education and monitoring of the World Anti-Doping Code - the structuring document for all anti-doping activity worldwide, in all sports and countries - since 2003.

Of particular importance within the scope of the LAD's activities is the International Standard for Laboratories (ISL), which aims to guarantee the quality and validity of the data and results produced by accredited laboratories in a uniform and harmonised way.

Source: <https://ipdj.gov.pt/>

2) Portuguese Anti-Doping Authority (Autoridade Antidopagem de Portugal - ADoP)

ADoP is the national anti-doping organization of Portugal. They are responsible for conducting anti-doping tests, implementing anti-doping education programs, and ensuring that Portuguese athletes compete in a clean and fair environment. ADoP collaborates with international anti-doping agencies and sports federations to uphold the integrity of sports in Portugal. For example: The Portuguese Anti-Doping Authority (ADoP), in partnership with the Faculty of Human Motricity of the University of Lisbon (FMH-UL), has created a postgraduate course called "Doping Prevention". This postgraduate course will begin on 1 October this year and will end on 31 January 2024. It consists of 6 modules of distance learning classes with asynchronous classes and tutorial teaching. The course, with a total of 20 ECTS, will be taught by professors from the University of Lisbon, the Doping Analysis Laboratory, the University Hospital Centre of Central Lisbon, the New University of Lisbon, the Judicial Police and the Portuguese Anti-Doping Authority. The course is aimed at professionals trained in: medicine, nursing, clinical analysis, physiotherapy, pharmacy, psychology, law, physical education and sports science, nutrition and dietetics and criminology. The aims of this postgraduate course are to provide a broad, ordered and

up-to-date view of the fight against doping in sport, as well as to provide specialised knowledge from multiple perspectives of the rules relating to the areas of doping education, prevention and regulation.

Source: <https://adop.pt/>

3) Portuguese Sports Federations

Various sports federations in Portugal, such as the Portuguese Football Federation (Federação Portuguesa de Futebol) and the Portuguese Athletics Federation (Federação Portuguesa de Atletismo), actively participate in anti-doping efforts within their respective sports. They work closely with international governing bodies like FIFA and World Athletics to implement anti-doping policies and educate athletes about the importance of clean sportsmanship.

Source: <https://www.fpf.pt/pt/>

4.5 SPAIN

1) CELAD Institution

The State Agency of the Spanish Commission for the Fight against Anti-Doping in Sport is the public body attached to the Ministry with competences in sports policy through which anti-doping policies are drawn up and executed, and which is responsible for planning, carrying out controls and the processing and resolution of sanctioning proceedings. The organisation, functions and action procedures of the State Agency Spanish Commission for the Fight against Doping in Sport shall be determined in its statutes in accordance with the provisions of Organic Law 11/2021 of 28 December, on the fight against doping in sport. The State Agency Spanish Commission for the Fight against Doping in Sport acts with full functional independence when establishing and implementing doping control measures on sportsmen and sportswomen subject to the aforementioned law. As a body specialised in the investigation, control and execution of the anti-doping policy in sport, the commission is configured as the state public body for advice and collaboration with the State Security Forces and Corps, the judicial police and the other public powers with competences related to its field of action and, at their request, with the judges and courts. Mission and vision The State Agency of the Spanish Commission for the Fight against Doping in Sport is a public body through which the State's anti-doping policies are implemented. Our Vision To be the driving force for a healthy and clean sport, fundamental in a society free of doping and cheating. CELAD's mission is to protect the right to health of all athletes and the right to participate in competition without cheating on equal terms. To achieve its mission, CELAD's work has three main axes: deter, detect

and enforce. CELAD discourages cheating and doping through education, doping control and the promotion of projects that help in the understanding of this social scourge and its eradication. CELAD detects anti-doping policy violations through doping control programmes and doping research programmes. CELAD enforces anti-doping rules by sanctioning any violation of these rules, applying the legislation in force. (<https://celad.culturaydeporte.gob.es/inicio.html>)

Evaluation of CELAD: Spain's anti-doping agency educational interventions among elite athletes and sports sciences students This project centers around evaluating the effectiveness of educational interventions carried out by the Spanish Anti-Doping Agency (CELAD). The interventions are directed towards elite athletes and coaches, as well as Sports Science undergraduate students. The primary goal is to enhance anti-doping knowledge and attitudes, thereby contributing to a more robust anti-doping policy in Spain.

(https://www.wada-ama.org/sites/default/files/resources/files/project_garcia_-_website_summary.pdf)

2) Spanish Society of Sports Medicine (SEMED / FEMEDE)

The Spanish Society of Sports Medicine (SEMED / FEMEDE) is a scientific-professional society that brings together societies and individual members who share a common interest in Sports Medicine and its related sciences. It is a young entity, with an existence of less than 30 years, but it is also an enormously experienced society, which has demonstrated an important agglutinating and organisational capacity in the field of Sports Medicine. Professionally, for years it has been an entity of primary importance in maintaining the speciality of Physical Education and Sports Medicine; it has also played a fundamental role in the drafting of laws that specifically affect our profession, such as the Law for the protection of health and the fight against doping in sport. This work has been possible thanks to the work carried out with organisations with which we maintain excellent collaboration links, such as the Consejo Superior de Deportes and the Organización Médica Colegial. Scientifically, SEMED / FEMEDE has been occupying a position of undisputed leadership. On the one hand, it has published, in recent years, several consensus documents that constitute a first-hand reference for health professionals. It has also published several books, which are an indisputable reference on the topics they address. Furthermore, it has been able to organise twelve National Congresses, three European Congresses and a World Congress, which has been a great success in terms of organisation, science and participation and which will be a reference for future high-level activities.

SEMED organize different Symposium, conferences about doping: DOPING PREVENTION DAY "PROTECTING DOCTORS FROM DOPING" (<https://www.femede.es>)

3) Diploma :PREVENTION OF DOPAGE

Doping is an established phenomenon in sport which has reached an enormous dimension, threatening the very essence of sport and potentially endangering the health of the athlete, which has made it necessary to develop strategies for its control and eradication. The best known measures are repressive, such as doping controls and sanctions. But there are prevention and education strategies that try to convince athletes not to use prohibited methods of doping.

The World Anti-Doping Code develops in a very important and complex way various aspects of the fight against doping, broadens the offences and provides for much tougher sanctions. This requires a thorough understanding of all doping prevention strategies to prevent athletes and athlete support personnel from committing doping violations, both intentional and unintentional.

Qualification awarded by the Universidad Católica San Antonio de Murcia (UCAM) in collaboration with CELAD with a teaching load of 20 ECTS.

This qualification provides the necessary training to gain in-depth knowledge of the meaning of doping, its health and legal consequences, the methods for combating doping and prevention strategies.

With the university expert degree in doping prevention there is possible to obtain the qualification of doping control agent from the Spanish Commission for the Fight against Doping in Sport (CELAD). (<https://celad.culturaydeporte.gob.es/dam/jcr:ada68d6f-aef7-4300-9949-15839060da1b/experto-prevencion-dopaje-2.pdf>)

5. CONCLUSION

In conclusion, the commitment of all partner countries to ethical, clean, and fair competition is evident through its emphasis on anti-doping education and programs. However, a knowledge gap exists among young athletes regarding doping and legal frameworks, indicating a need for education. Coaches and sports organizations also demonstrate limited awareness of doping's benefits and drawbacks, emphasizing the necessity for increased knowledge dissemination.

The survey conducted among young athletes provides valuable insights into their demographics, sports preferences, and attitudes. The majority understands the significance of proper nutrition and concerns about supplement use, including safety, side effects, legality, and cost, are prevalent.

The lack of education on doping is a notable finding, with 70% of the participants claiming that they have never participated in any educational program about doping. There is unanimous agreement that more information is needed from sports organizations to bridge this educational gap. All partner countries stand out for their proactive approach to clean competition and implementing anti-doping measures. Coaches and young athletes express a desire for more education and training, recognizing the existing gaps. The positive mentality toward good sports practices is evident, but efforts to enhance knowledge persist. Motivations for considering doping include a desire for a competitive edge and peer influence, emphasizing the role of coaches and sports organizations. Stricter rules, increased awareness, and comprehensive education are seen as essential to protect athletes and ensure fair sports practices.

Research in Slovenia's volleyball community reveals that coaches undergo mandatory doping training, ensuring a basic knowledge base. Athletes over 14 receive doping training, while those under 14 rely on various sources for information. The importance of nutrition is acknowledged, and young athletes' express openness to additional education.

There is a global recognition of the need for enhanced anti-doping education. Athletes display varying levels of awareness, emphasizing the importance of tailored educational programs. Coaches and sports organizations play a vital role in shaping attitudes and behaviors. Safety, health, legality, and cost considerations are central to athletes' decisions on supplement use. Ongoing efforts are required to bridge knowledge gaps, adapt to evolving attitudes, and ensure fair and clean competition in the world of sports.

6. ANNEX 1. QUESTIONNAIRE

SAGE | Sound Athletes Grow Sound Societies - Clean Sport Education

Project Number: 101091014

Data Collection & Educational Tools Development

SECTION 1: CONTEXT OF THE SURVEY

Welcome to the **Sound Athletes Grow Sound Societies - Clean Sport Education (SAGE)** survey. This survey is an integral part of our efforts to support young athletes participating in competitive sports and promote **Clean Sport Education**.

Your input is invaluable and will play a crucial role in shaping the **SAGE training course** focused on sports and anti-doping education.

We understand that your time is precious, and we assure you that this survey will only take a few minutes.

This survey is completely anonymous.

Your input is crucial, and this survey will take only 10 minutes of your time!

1) AGE:

13-15

16-18

18+

2) GENDER::

MALE

FEMALE

PREFER NOT TO SAY

3) SPORT PRACTICED:

TEXT

4) DID YOUR DIRECT FAMILY INFLUENCE YOUR SPORT CHOICE?

YES

NO

5) HOW MUCH DO YOU ENJOY PRACTICING THE SPORT YOU DO?

1-5 SCALE

(1) NOT AT ALL

(5) VERY MUCH

6) WHAT DO YOU ENJOY MORE ABOUT THE SPORT YOU PRACTICE?

TEXT

7) WHAT THINGS WOULD YOU BE WILLING TO DO TO BE A BETTER PRACTITIONER?

TEXT

8) HOW SERIOUS DO YOU TAKE THE COMPETITION IN SPORTS?

1-5 SCALE

(1) NOT AT ALL

(5) VERY MUCH

9) WHAT ARE YOUR MAIN NUTRITIONAL NEEDS AS AN ATHLETE? FOODS/SUBSTANCES

TEXT

10) DO YOU CURRENTLY USE ANY SUPPLEMENTS? IF YES, WHICH ONES?

TEXT

11) HOW DO YOU DECIDE WHICH SUPPLEMENTS TO USE?

RECOMMENDATIONS FROM A COACH OR TRAINER

RECOMMENDATIONS FROM OTHER ATHLETES

SCIENTIFIC RESEARCH AND STUDIES

PERSONAL TRIAL AND ERROR

INTERNET

OTHER RESOURCE

12) WHAT CONCERNS DO YOU HAVE ABOUT USING SUPPLEMENTS?

SAFETY AND SIDE EFFECTS

MEDICAL HEALTH

LEGALITY IN SPORTS

COST

13) WHAT WOULD HELP YOU MAKE MORE INFORMED DECISIONS ABOUT SUPPLEMENT USE?

MORE SCIENTIFIC RESEARCH AND INFORMATION

CLEARER PRODUCT LABELING AND INFORMATION

GUIDANCE FROM SPORT ORGANISATIONS

PERSONAL EXPERIENCES FROM OTHER ATHLETES

14) ARE YOU AWARE OF WHAT DOPING IS?

YES

NO

15) HAVE YOU EVER USED PERFORMANCE-ENHANCING SUBSTANCES?

YES

NO

16) HOW WOULD YOU RATE THE LEVEL OF AWARENESS AMONG YOUNG ATHLETES ABOUT THE BENEFITS AND RISKS OF PERFORMANCE-ENHANCING SUBSTANCES?

1-5 SCALE

(1) VERY LOW

(5) VERY HIGH

17) HAVE YOU EVER RECEIVED ANY EDUCATION OR TRAINING ABOUT DOPING AND ITS CONSEQUENCES IN SPORTS?

YES

NO

18) WHAT DO YOU THINK ARE THE POTENTIAL CONSEQUENCES FOR ATHLETES WHO ARE CAUGHT DOPING IN YOUR SPORT?

TEXT

19) DO YOU THINK THAT YOU SHOULD BE PROVIDED WITH MORE INFORMATION ABOUT PERFORMANCE-ENHANCING SUBSTANCES BY YOUR ORGANISATION?

YES

NO