Keywords: civil society, sport, doping

Abstract: The aim of the paper is to present the model of Polish civil society development in sport, which is based on three phases: the first one consists in creating rules by international organizations; in the second one public authorities introduce legal regulations based on previously developed organizational standards; in turn, the third phase relies on checking to what extent these rules and regulations have been internalized by their addresses. The indicator for measuring the level of development of civil society in sport was the knowledge of the legal concept of doping among members of Polish national teams.

Introduction

Current research on doping in sport in terms of social sciences has focused on explaining and understanding psychosocial premises – assumptions, beliefs, which could trigger the implementation of educational programs to prevent
Doping Knowledge as an Indicator to Measure the Development Level of Civil Society

doping in sport\(^1\). However only few studies concentrate on testing athletes’ knowledge about doping. One of the reasons of this situation is the difficult access to players why do not show interest and willingness to participate in the discussion, even if anonymity and confidentiality are guaranteed by the researchers\(^2\). As a result, it is difficult to obtain reliable information on doping because athletes, by completing a questionnaire or participating in an interview and answering honestly, put their careers at risk\(^3\).

Based on the presented approaches to research on doping in social sciences, the article presents the results of a quantitative study in which the state of knowledge about doping among representatives of the Polish national team was treated as a measure to examine the level of development of civil society in sport. The aim of the quantitative research was to examine the relationship between the level of development of civil society in the social environment of athletes and the level of their knowledge about doping in sport in the period 2011–2014.

In the article were formulated three research questions:
1. Is there a relationship between gender and knowledge of the concept of doping?
2. Is there a need to differentiate the principles, rules and law in the field of combating doping in sport according to the gender of athletes?
3. At what stage of development is Polish civil society in sport?

In the article was verified the main hypothesis, in which it was assumed that the level of development of civil society in sport differs in the group of athletes divided on the basis of an independent variable, which is gender, if the indicator of knowledge of the legal concept of doping is used to compare them.

An auxiliary hypothesis was also formulated, which is expressed in the assumption that the level of development of civil society in sport has not reached the third phase yet, if athletes’ knowledge about doping is taken into account.


In carrying out the quantitative research, the diagnostic survey method was used, commonly adapt in the study of attitudes, opinions and social views. The survey questionnaire is a developed technique of collecting data with a high degree of standardization, which makes it possible to obtain information from respondents.

The inductive method was the basic research directive in the data elaboration from the survey. Induction enabled to formulate generalizations based on the collected data. The following research methods were also used to assist in the elaboration of the collected material from the surveys: literature analysis, analysis of legal acts, historical and comparistic methods.

The analysis of the literature made it possible to be acquainted with the essence of the concept of doping in sport. Thanks to it, it was possible to refer to what had already been written in this subject. Through the study of documents and the collection of preliminary descriptive and quantitative information, the analysis of the literature made it possible to get acquainted with the research conducted so far in the field of doping in sport. In turn, the historical method was helpful in showing the genesis of the formation of the legal concept, both in the Polish and international perspective. Therefore, it was also necessary to analyze the legal acts that formed the basis for the current legal system in the field of anti-doping proceedings. In this matter was also auxiliary comparistic method, which enabled to compare data collected in the questionnaire.

The term of civil society

There are many approaches to define the term of civil society. They can be considered from the perspective of an individual or from the point of view of a specific community. The first of them relies on the analysis of human attitudes, which consists of the awareness of rights and obligations towards a specific community. As a result, the individual plays the role, which are created in the community. An individual feel empowered, when he or she has a sense of belonging and agency. On the other hand, from the point of view of the community, the analysis of civil society consists in examining the role, tasks and place of social, economic and political organizations in a given country. The article adopts an individual perspective, which enabled to present knowledge about doping in the sport of members of the Polish national team.

The Western approach to civil society emphasizes its associational character and multi-level relations with the state. In opposition to it, is the understanding of civil society as a community based on social self-organization.
functioning outside the area of politics\textsuperscript{4}. In the second approach, contemporary civil society can be defined as an area of activity and life organization of citizens, regardless of state structures\textsuperscript{5}. In the social self-organization trend, Francis Fukuyama also wrote about civil society, who defined it as a network of entities located between the family and the state, including economic organizations, voluntary associations, educational institutions, clubs, trade unions, media, charities and churches\textsuperscript{6}. Therefore, the group of these entities also includes sports organizations and associations.

A feature of civil society is belonging to specific communities (groups), which are selected by their participants due to similar value systems. Then, the scope of individual activities of their members indicates the level of trust in the organization and represented values\textsuperscript{7}.

The basis for examining the level of development of the civil society is then social capital, i.e. trust, which is expressed in observing the rules of conduct and the will to cooperate within the framework of rules defined by organizations. At the individual level, therefore, an analysis of the relational nature of their members is required. The pattern of this activity is shaped by individual proceedings, during which interactions take place with members of the community, rules introduced by a specific community, or regulations implemented by the state. An inseparable subject of analyzing the relationship between the individual and the community as well as the community and the state are processes understood as commands of specific behavior shaped by legal and social norms\textsuperscript{8}. Then the process can be considered in the context of making individual decision, which are the source of information and rules that define the framework for the functioning of a member of a given organization\textsuperscript{9}.

Civil society in sport can therefore be characterized by the following features: group organization, location outside the state, optional membership and representation of collective interests and goals. The basis for belonging to the community of people practicing professional (or amateur) sport are the


\textsuperscript{7} J. Herbst, *Faces of civil society*, Warszawa 2005, p. 11.


values of sport, which include: the principle of fair play, honesty, teamwork, joy of undertaking physical activity, respect for the law, oneself and other participants. Striving to achieve better and better sports results, breaking world records, pushing the limits of human capabilities by leading athletes and the irresistible need for success cause that athletes do not withdraw from using doping. As a result of unfair practices, the values that are the basis of belonging to the community of athletes are violated.

Consequently, the use of performance-enhancing substances by professional athletes causes a crisis of trust both for professional and amateur athletes towards national sports organizations and the applicable law, which is not able to provide legal conditions for competition.

Based on the above analysis, the authors of the article assumed that examining the level of development of civil society in sport at the level of communities to which organizations, unions and sports clubs belong requires an individual approach, based on checking the knowledge of professional athletes about doping. For this reason, the concept of a civil society in sport, based on three phases, was developed. The first is the creation of rules by international organizations. In the second phase, public authorities introduce legal regulations based on previously developed organizational standards. The third phase is to check to what extent these rules and regulations have been adopted by the athletes as their own. The structure of the article was prepared according to the presented concept.

**First phase of civil society in sport**

Two development directions of civil society in sport can be distinguished at the stage of its first phase consisting in the adoption of rules by international organizations. The first direction is related to political activities and sports international organizations that issued legal documents and statements denying the use of illegal substances taken by athletes. The second, which was created as a result of the shortcomings of the first, consisted in the creation of international institutions (the World Anti-Doping Agency – WADA) dedicated to the fight against doping in sport. A common feature of both directions was the rivalry of organizations in creating their own definitions of doping and expanding their scope.

The first direction was initiated in the late 60s. of the XIX century. As a result of numerous protests about the dangers that accompanied doping, doctors took the first steps to combat it. The medical community fought against doping through numerous publications, congresses, symposiums, international
conventions and anti-doping inspections of athletes. Influenced by sporting events in 1967 (regarding thirty deaths caused by doping), the Committee of Ministers of the Council of Europe adopted Resolution 12/67 on combating doping in sport, which became the first document of international importance on the fight against doping in sports. The resolution introduced the concept of doping defined as chemical or physiological manipulation of the human organism prohibited in sport, threatening the ethical values of sport and the competitor's health.10

The essence of this document was to draw attention to the threat to the ethical values of sport and the danger posed by the use of prohibited substances in the context of athletes' health. This was an appeal to the governments of the Council of Europe countries to oblige sports organizations to introduce legal regulations relating to the phenomenon of doping by athletes.

As a result of the activities of the Council of Europe, the building of a civil society in sport around the fight against doping was initiated. A uniform international anti-doping movement began to take shape, assuming the active role of state authorities. Its effect was the adoption in 1984 the European Charter Against Doping in Sport by the Committee of Ministers of the Council of Europe. This common front in the fight against doping resulted in the adoption of the International Anti-Doping Charter at the 1st World Anti-Doping Conference in 1988 in Ottawa, transformed in the same year at the session of the International Olympic Committee (hereinafter referred to as the IOC) into the International Olympic Charter Against Doping in Sport.11

The current definition of doping was formulated by the Medical Commission of the International Olympic Committee (IOC) only in 1986. It assumed that doping is the administration or use by athletes of any substance foreign to the body or any physiological substance taken in normal amounts or injected into the body in an unnatural way for the sole purpose of artificially or dishonestly increasing competition performance.12

Then, in 1989, the Anti-Doping Convention of the Council of Europe was developed, which is a document coordinating international cooperation to regulate and eliminate doping in sport. The Convention recognized multilateral cooperation and mutual assistance of both international and national organizations as effective in the sphere of combating unfair practices. Four


As a result of their actions, a number of standards and a common policy were established for governments in the field of their autonomous activities, which related to supported sports organizations. The Convention established strict rules that would apply to all disciplines. The signatories, on the other hand, were obliged to solve independently the problem of doping at the national level, taking appropriate actions to protect and implement the ideals and principles that are their common heritage, supporting their economic and social development. The Convention indicated that sport should play an important role in the field of health protection, moral and physical education, and should reduce concerns arising from the increasing number of cases of use of doping substances and the use of doping methods by athletes of various disciplines and the consequences of this for the health of athletes and the future of sport. To sum up, the basic idea of the Convention was to draw attention to the widespread phenomenon of doping and related risks.

In 1994, the IOC adopted the Medical Codex along with a list of prohibited substances and prohibited doping methods and unified sanctions for their use. The Medical Codex was a great step forward in creating and systematizing anti-doping regulations. Unfortunately, not all organizations have accepted the content of the regulations. A similar situation was with the Codex of the International Olympic Committee adopted in the same year. The Codex defines doping as the use of a substance (substance or method) that is potentially dangerous to the athlete’s health, but is capable of enhancing athletic performance, or the presence in the athlete’s body of a prohibited substance or method or evidence of its use. The introduction of the definition resulted in its lack of support by sports federations and caused numerous scandals (e.g. police action during the Tour de France in 1998).

In turn, in the statement of the International Federation of Sports Medicine on doping in sport from the year 1999, was formulated accurate definition of prohibited substances use. According to this definition, doping in sport was

---

17 J. Smorawiński, A. Pokrywka, M. Rynkowski, Selected issues of managing the anti-doping system in Poland and in the world, «Scientific Papers of the Poznan University Economics and Business in Poznan» 2011, no. 197, p. 70.
Doping Knowledge as an Indicator to Measure the Development Level of Civil Society

deliberately or unintentionally use of means or methods by athletes prohibited by the International Olympic Committee (IOC)\textsuperscript{18}.

As a result of the need for a global range of actions and decisions, including those adopted under the Anti-Doping Convention of the Council of Europe, the International Convention Against Doping in Sport was adopted at the plenary session of UNESCO in Paris on October 19, 2005\textsuperscript{19}.

The intensive activity of people fighting doping led to the creation of the World Anti-Doping Codex, which is a legal act of particular importance, adopted during the World Anti-Doping Conference in Copenhagen on March 5, 2003. The said legal act replaced the previously binding Anti-Doping Codex of the Olympic Movement.

Pursuant to the provisions of that time, the World Anti-Doping Codex was adopted as the basic legal act in the work of: the IOC, the International Sports Federation, the National Olympic and Paralympic Committees, the National Anti-Doping Organizations and the organizers of major sports events. Its structure has a three-level structure consisting of: a codex, international standards and models of solutions. The Codex was amended three times in 2007 and 2015. The current version of the World Anti-Doping Code entered into force on January 1, 2021.

The goals of the World Anti-Doping Codex and the World Anti-Doping Program in Sport include the following priorities:

1. protecting the fundamental right of athletes to participate in doping-free sport, thereby promoting the health, integrity and equality of athletes worldwide;

2. ensuring harmonized, coordinated and effective anti-doping programs in sport through preventive actions at the international and state level\textsuperscript{20}.

World Anti-Doping Codex is the basic and universal document on which is based the World Anti-Doping Program in Sport. Its purpose is to promote actions to combat doping by universal harmonization of basic anti-doping elements and by making the implementation of agreed anti-doping rules more flexible. To sum up, the Codex precisely defines: the definition of doping, prohibited substances and methods, the fight organization against doping, the rules of conducting inspections and the rules of cooperation in the fight against doping.

Based on the above analysis, the following conclusions can be drawn firstly, along with the development of civilization, the properties of various

\textsuperscript{19} A. Kijowski, \textit{Legal aspects of doping...}, p. 46.
substances were discovered, which were used to intoxicate the body, add courage and, consequently, to increase physical fitness. Secondly, the evolution of prohibited means and methods, as well as the change in attitudes and motives of people using prohibited substances, necessitated the parallel updating of the definition of doping in sport. Thirdly, insufficient action in the fight against doping reflected the weakness of international political, sports and medical organizations, which were unable to solve top-down the problem of doping. Fourthly, the initially formulated definitions of doping, created mainly by sports organizations, unfortunately tended to identify it with the use of methods currently prohibited by a given organization. Fifthly, the definitions of doping emphasized the effects of its use only for the competitor, ignoring the fact that the occurrence of doping is the information about the functioning of a sports association, club, coaches and other people involved in building a competitive system in sport.

Second phase of civil society in sport

Between the first and the second phase of civil society in sport, the following relationship can be indicated: while in the first of them doping was an international problem and marginalized at the national level, at the second phase it became a challenge for the central authorities, which faced the problem of solving it in Polish law. The lack of legal regulations at the national level also caused the situation, in which Polish sports organizations operated on the basis of international standards without adapting them to the specificity of the country. As a result, there was a lack of organizations at the national level that could build and coordinate a civil society based on the value called “spirit of sport”, which reflects the human spirit, body and mind and is characterized by the following values: ethics, fair play and honesty; health; excellence in action; character and education; fun and joy; teamwork; dedication and commitment; respecting the rules and the law; respecting oneself and other participants; courage; sense of community and solidarity21.

Combating doping in Poland, based on international standards, caused the fact that, the problem of doping was treated as occurring at the international level and not at the Polish level. This state of affairs resulted in focusing on the athlete and not on his environment, according to its principles he functioned. The environment consisted of such organizations as: the national team, sports association or sports club, which reacted on detections of the use of prohib-

Doping Knowledge as an Indicator to Measure the Development Level of Civil Society

Doping regulations did not prevent the occurrence of doping. As a result, the construction of an international civil society based on the fight against doping resulted in its construction at the national level. Therefore, Poland needed an organization that could combat the dishonest practice of using prohibited substances and methods and shape basic attitudes and values aimed at promoting the spirit of sport.

Polish law reacted with delay to anti-doping regulations introduced at the international level. Initially, in the Act of 18 January 1996 on physical culture\(^\text{22}\), in the chapter on combating doping in sport, the legislator defined its concept, listed the current list of doping agents and methods, defined the rules of control, the procedure for adjudicating penalties and disqualifications and introduced the body to combat doping in the country, i.e. the Commission Against Doping in Sport.

Another legal act that included provisions on preventing and combating doping in sport was the Act of 29 July 2005 on qualified sport\(^\text{23}\). The legislator once again defined doping as an activity based on the use by athletes of prohibited pharmacological means or methods recognized as doping. In the legal act was clearly stated that the use of doping is prohibited. In the legal act was also defined the status and competences of the Commission for Combating Doping in Sport. Moreover, there was also introduced a statutory obligation for the competitor to take anti-doping tests.

However, the existing solutions turned out to be insufficient. On 16.10.2010, the Act of 25 June 2010 on Sport\(^\text{24}\) repealed the Act of 1996 on Physical Culture and the Act on Qualified Sport of 2005. The Act on Sport of 2010 originally contained a chapter on combating doping in sport. However, it only consisted of three articles. It mainly concerned on the definition of doping in sport, the status and competence of the Commission Against Doping in Sport, the method of financing anti-doping tests and other activities of the Institute of Sport, which are necessary to maintain the accreditation of the World Anti-Doping Agency (WADA)\(^\text{25}\).

Poland, as a signatory to all the documents and legal acts mentioned in the article on the international arena, actively participating in extensive activities regarding the fight against doping in sport on the basis of the aforementioned legal acts, fulfilled the challenge posed by the World Anti-Doping Codex.

---

\(^{22}\) Legal act of 18 January 1996 on physical culture, Dz. U. Nr 25, poz. 113.

\(^{23}\) Legal act of 29 July 2005 on qualified sports, Dz. U. Nr 155.


which consisted in developing educational programs for athletes, including youth and athlete support staff. Their implementation made it necessary to extend the concept of doping in order to increase the scope of protection and control of the athletes’ environment.

The effect of the work was the adoption of the Act of 21 April 2017 on combating doping in sport\textsuperscript{26}. In art. 3 of the mentioned legal act, the most extensive definition of the concept of doping was introduced, which should be understood as:

1. the presence of a prohibited substance, its metabolites or markers in the athlete’s sample;
2. use or attempted use by an athlete of a prohibited substance or prohibited method;
3. avoiding the collection of a physiological sample, refusing the collection of a physiological sample or failure to report for such collection without a valid justification, after prior notification of the competitor about the selection of a physiological sample by a person authorized to collect it;
4. failure to provide the required whereabouts information for the doping control;
5. tampering or attempting to tamper with any part of doping control;
6. possession of a prohibited substance or devices to use a prohibited method;
7. marketing or attempted marketing of a prohibited substance or devices enabling the use of a prohibited method;
8. administering or attempting to administer an in-competition athlete with a prohibited substance or prohibited method or administering or attempting to administer an out-of-competition athlete with a substance prohibited out-of-competition or a method prohibited out-of-competition;
9. aiding, abetting, or any other type of knowingly complicity involving conduct that is considered to be doping in sport or an attempt to do so, or a violation of the terms of a period of Ineligibility by another person;
10. cooperation as part of professional duties or other duties related to sport with a person helping in preparation for sports competition, who: being subject to the provisions on disciplinary liability for doping in sport, is serving a disqualification penalty or not being subject to the provisions on disciplinary liability for doping in sport, has been convicted of or has been proven to be involved in conduct considered to be doping in sport in criminal, disciplinary or professional liability proceedings or acts as a representative or intermediary of these persons;

\textsuperscript{26} Legal act of 21 April 2017 on combating doping in sport, Dz. U. 2017, poz. 1051.
11. an athlete or other person acting to discourage or threaten a person reporting an anti-doping rule violation or threatening a person reporting an anti-doping rule violation other than tampering or attempting to tamper with any part of doping control.

It should be added that a competitor is not punishable for doping understood as cooperation with another person in terms of its professional duties or other duties related to sport, as well as helping to prepare for sports competition, if he or a person undertaking such cooperation proves that cooperation with a person about the status of a person helping in preparation for sports competition was not related to sport, professional work or that this cooperation could not be avoided. Prohibition of cooperation with a person who has been convicted or has been proven to be involved in conduct considered as doping in sport in criminal, disciplinary or professional liability proceedings lasts for a period of 6 years from the date of the decision in criminal, disciplinary or professional liability proceedings, or for the period of the penalty imposed in these proceedings, if its length exceeds 6 years.

The act also provides circumstances justifying the treatment of certain behaviors as an exception to the one defined in art. 3. This exception applies to conduct, meets the conditions set out in the definition of doping, but cannot be treated as such for specific reasons. Pursuant to art. 3 sec. 4 of the act on combating doping in sport, it refers to, all behaviors related to the athlete's intake of a prohibited substance or the use of a prohibited method, if it is justified by a therapeutic goal, including: the presence of a prohibited substance, its metabolites or markers in the athlete's physiological sample; the athlete's use or attempted use of a prohibited substance or prohibited method; possession of a prohibited substance or devices that enable a prohibited method; the administration or attempted administration of prohibited substance or prohibited method to an athlete during competition or the administration or attempted administration of prohibited substance or prohibited method during time before sport competition. The exclusion condition is obtaining the consent of the Polish Anti-Doping Agency for the use of a specific prohibited substance or prohibited method. This exception is related to the introduction by WADA of the International Standard for Therapeutic Use Exemptions (TUE), which extract is also an annex to the International Convention Against Doping in Sport.

It should be emphasized that the act on combating doping in sport established the Polish Anti-Doping Agency, which replaced the Commission for Combating Doping in Sport. The Polish Anti-Doping Agency's scope of tasks includes: defining the rules and course of anti-doping control, establishing disciplinary rules regarding doping in sport, as well as planning and conduct-
ing anti-doping control during competitions and time out of competition or conducting explanatory activities aimed at establishing disciplinary liability for doping in sport.

Summarizing, at the national level the legal regulations show that the phenomenon of doping in sport is widely regulated by law. All decisions concerning it are first taken at the international level and only then are adapted to national legislation, which is confirmed by the adopted model of civil society development phases in sport. A breakthrough moment in the field of building the legal framework for the functioning of organizations, which build civil society was the adoption of the mentioned act on combating doping in sport in 2017.

Third phase of civil society in sport

The civil society is the process. Therefore, the assessment of each organization can be considered not only from the perspective of its statutory tasks and competences of its authorities, but also from the point of view of the individual, who will be the source of information about collective maturity and group solidarity. According to the adopted concept, an athlete acquires specific norms and rules as a result of functioning in a specific community, which enforces their application. If the athletes are a community based on the bond of practicing a specific sport discipline, they are strictly conditioned by the rules of a given group. Therefore, the analysis of civil society in sport should start from individuals, whose behaviors reflect the level of operation of the organizations to which they belong, including usage of the anti-doping programs.

The most elite group are members of the Polish national team. Due to their international and national successes but also risks associated with the use of doping in order to maintain championship condition and keep winning prizes, they become a special group that is a kind of “test” of the anti-doping activities of sports organizations in Poland – and therefore civil society in individual terms. The basis for examining the attitudes of a representative of the Polish national team, which consist of awareness of its rights and obligations towards a specific community of people practicing the same sports discipline, is knowledge of the legal concept of doping.

---

27 Ibidem.
In the years 2011–2014, the co-author of this article, Dr. Tomasz Balcerzek, conducted quantitative research using the survey technique during training camps in the Polish Olympic Preparation Centers – Szczyrk, Wałcz, Spała, Cetniewo and Giżycko.

The collected and organized data were analyzed and statistically processed using programs included in the STATISTICA 10 package (StatSoft Inc.). It was used to perform a number of analyzes evaluating the relationships and significance between qualitative variables, presented in the form of numbers. For this purpose, was used the Pearson chi-square ($\chi^2$) test of independence. Since the size of $\chi^2$ depends on the number of observations and the number of degrees of freedom, its size cannot be compared from two different tables. This is possible by using an indicator of the degree of dependence ($V$), called the V-Cramer coefficient, which was performed for crosstabs larger than $2 \times 2$. On the other hand, the strength of statistically significant effects for $2 \times 2$ tables was inferred on the basis of the $\Phi$ coefficient. To determine the level of significance of the found relationships or differences (p) the following notations were used: $p \leq 0.01$; $p < 0.05$ – statistically significant; $p \geq 0.05$ – not statistically significant.

The following scale was adopted to assess the correlation coefficient:

- $0.0 \leq r \leq 0.3$ weak correlation;
- $0.3 \leq r \leq 0.5$ average, moderate correlation;
- $0.5 \leq r \leq 0.7$ high correlation;
- $0.7 \leq r \leq 0.9$ very high correlation;
- $0.9 \leq r < 1$ almost complete correlation.

In total, 250 respondents were surveyed, after rejecting incomplete questionnaires, the scope of the comparative analysis of the material covered 158 people – 72 women and 86 men.

**Figure 1.** Percentage distribution of the surveyed people

![Percentage distribution of the surveyed people](source: Own elaboration based on questionnaire.)

The age of the respondents ranged from 17 to 36 years. The average age was 25, with the majority of respondents aged 21. Detailed characteristics regarding the age of the respondents are presented below.
Table 1. Metric data

<table>
<thead>
<tr>
<th>General Data</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>Mode Quality</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Lower quartile</th>
<th>Upper quartile</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age [years]</td>
<td>158</td>
<td>25,0</td>
<td>24</td>
<td>21</td>
<td>20</td>
<td>17</td>
<td>36</td>
<td>22</td>
<td>28</td>
<td>4,34</td>
</tr>
<tr>
<td>Women</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age [years]</td>
<td>72</td>
<td>24,4</td>
<td>24</td>
<td>Multiplicity</td>
<td>9</td>
<td>17</td>
<td>36</td>
<td>21,5</td>
<td>27</td>
<td>4,03</td>
</tr>
<tr>
<td>Men</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age [years]</td>
<td>86</td>
<td>25,5</td>
<td>24</td>
<td>Multiplicity</td>
<td>11</td>
<td>19</td>
<td>36</td>
<td>22</td>
<td>30</td>
<td>4,55</td>
</tr>
</tbody>
</table>

Source: Own elaboration based on questionnaire.
Out of 158 respondents, who answered the question about the knowledge of the phenomenon of doping in sport, approximately 65% of the respondents correctly defined the meaning of the term doping. The above group included 53% of men and 47% of women. The three-phase model of the development of Polish civil society in sport presented in the article corresponds to the logic of creating a legal framework for anti-doping programs. The logic behind it, relies on the fact that international regulations are drafted first and then adopted and adapted to the specificity of the national order, conditioning the creation of the above-mentioned programs. Based on the results of the study, it can therefore be concluded that the adopted methodology for developing anti-doping programs involving the creation of top-down guidelines for their preparation does not meet the requirements of practice.

The research shows that slightly more than half of the surveyed players of the Polish national team are aware of the risks of using doping. As a result, it would be recommended to create anti-doping programs based on the
athletes’ knowledge of the concept of doping in sport. In the study, 65% of the respondents correctly defined the concept of doping. Knowledge of the concept of doping confirmed the effectiveness of the previous two phases of civil society in sport. It follows, therefore, that it is necessary to further disseminate anti-doping programs both among athletes and coaches and other people involved in supporting the preparation of athletes for sports competition in order to build a civil society in sport understood as a community, which is capable to regulate independently its affairs based on fair play rules.

An important aspect in combating the use of prohibited substances is also the issue of directing the appropriate anti-doping program to a specific group of athletes distinguished according to their sex. For this purpose, it was checked whether there was a statistically significant relationship between the sex of the respondents and the frequency of the correct answer regarding doping. The analysis was carried out using the chi-square test of independence. The obtained result indicates that the analyzed variables are not related to each other $\chi^2(1) = 0.33; p = 0.594$. As shown in the data in Table 2, the lack of knowledge about doping in the group of surveyed men is observed in 25% of cases, while in 75% of cases was recorded the knowledge. The proportions of responses in the group of women are similar. The phenomenon of doping in their answers is correctly formulated by 67% of the respondents, while the lack of knowledge of the problem of doping in sport is recorded in 33% of cases.

The third phase of the civil society in sport, examined due to the criterion of knowledge of the concept of doping, was confirmed in the conducted research. The survey results of the knowledge about doping in sport are representative for both women (46%) and men (54%). The largest number of respondents were aged 21. Therefore, they are the most vulnerable group to use doping, assuming that they will practice sport for more than 10 years.

Table 2. Relationship between correct knowledge about doping and the sex of respondents

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Men</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>number of respondents</td>
<td>21</td>
<td>64</td>
</tr>
<tr>
<td>percentage</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td><strong>Women</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>number of respondents</td>
<td>24</td>
<td>48</td>
</tr>
<tr>
<td>percentage</td>
<td>33%</td>
<td>67%</td>
</tr>
</tbody>
</table>

Source: Own elaboration based on questionnaire.
The results of the research were also subjected to statistical analysis in order to verify the relationship between the sport discipline and the knowledge about the phenomenon of doping in sport. A chi-square test of independence was performed. Its result indicates that the type of sport practiced by the respondents is not statistically significantly related to the knowledge of the concept of doping $\chi^2(1) = 3.67; p = 0.55$. As a result, it turned out that anti-doping programs shaping the knowledge and awareness of athletes do not have to correspond to a given specificity of a sports discipline.

## Conclusions

The article presents the results of the study of knowledge about doping in the sports of members of the Polish national teams of: handball, wrestling, field hockey, judo, weightlifting, kayaking and windsurfing selected on the basis of the largest number of identified cases of doping use. The research did not confirm the relationship between the sport discipline and the knowledge of the concept of doping. The study of the relationship between the state of knowledge about doping in sport and the sex of members of national teams in selected national teams showed that all anti-doping programs should be developed without diversifying into the sex of recipients. A unified message is a manifestation of equal rights for women and men in sport. It cannot therefore be concluded that the use of prohibited substances in sports competition is more common for men than women. Therefore, it is not justified to search for and introduce new and effective forms of fight and prevention against the growing phenomenon of doping, dedicated separately to women or men. Therefore, there is no need to differentiate the knowledge about doping in sport according to the sex of the athletes.

The conducted quantitative research confirmed that there is no need to differentiate the principles, rules and law in the field of combating doping in sport due to the gender of athletes. National organizations should therefore uphold equal treatment of women and men practicing sport professionally in the field of anti-doping proceedings.

Civil society in sport is currently in its third phase of development. According to the research, there is no full internalization of the rules and organizational principles which create the community, to which belong the athletes of the Polish national team. Therefore, there is a need for continuous training on doping in order to broaden the knowledge of athletes, coaches and other people involved in the organization of competition in sport.
The added value of the article is the presentation of the methodology for developing anti-doping programs and trainings organization, which scope should be a combination of a bottom-up approach based on research of the knowledge of doping among athletes with national and international legal regulations.

Bibliography


Smorawiński J., Pokrywka A., Rynkowski M., Selected issues of managing the anti-doping system in Poland and in the world, «Scientific Papers of the Poznan University Economics and Business in Poznan» 2011, no. 197.