

## Original Article

### Role of university sports in health promotion among people with disabilities in Poland

KAJETAN SUCHECKI

Department of Health Economics and Health Management, Faculty of Health Sciences in Bytom, Medical University of Silesia in Katowice, POLAND

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#### Abstract:

**Purpose:** Academic sport is a specific type of human physical activity in which members of the academic community take part. Among academic athletes, we can also find people with disabilities, for whom participation in sports activities and competitions is quite a challenge. It is also an opportunity for physical and mental development, as well as a form of health promotion among such people, especially due to the integrative nature of competitions organized at the academic level. The main goal of the article is to show the role of academic sport in promoting health among people with disabilities in the communities of universities.

**Design/methodology/approach:** This paper uses the analysis of legal acts concerning sports competition in Poland and internal acts of the University Sports Association (AZS), source documents and data provided by the AZS Main Board, as well as netography and case reports - sports events for students with disabilities. **Findings:** Promotion of health and physical activity are among the main goals of the University Sports Association. They are also carried out for disabled members of the academic community, although these activities are carried out on a clearly smaller scale. On the one hand, disabled students have the opportunity to take part in cyclical sports competitions and participate in training camps, on the other hand, there is still a large number of universities that do not take part in these competitions. On the positive side, it should be noted that the number of players and disciplines in the AZS Integration Polish Championship is growing every year. **Research and practical limitations/implications:** There is relatively little data on academic sport of people with disabilities, and a further development of these considerations should be primary research among disabled students of athletes in the form of a survey. It is also difficult to estimate the number of disabled students at individual universities, due to the fact that not all students provide such information to their universities, and in addition, universities do not want to share this data due to their high sensitivity. **Originality/value:** There are few publications on academic sport in Poland, especially in the case of its role in health promotion. There are no similar publications showing the role of academic sport in promoting the health and physical activity of students with disabilities. This topic, due to its importance and importance, should be expanded and deepened in future analyzes.

**Key Words:** university sports; disabilities; health promotion; AZS; physical activity; students;

#### Introduction

Health promotion is not a strictly medical field, although it is inextricably linked with medical science. However, it is a wider issue, considered in an interdisciplinary way in the field of medical sciences, health sciences, economic sciences, law and sociology. We can talk about the development of health promotion since the second half of the twentieth century, when it was found that the existing methods and funds allocated to the protection of health of the population are not sufficiently effective, and the so-called civilization diseases (Woźniak-Holecka 2014).

It is assumed that the most important habitat for health education of young people is the family, and then the school - from the pre-school level, through primary school to post-primary school, in which, in Polish conditions, you can find elements related to health promotion, environmental health or education of health. Most often, these topics are part of the subjects appearing during the implementation of the core curriculum for individual years, less often they are a separate part of the education of a young person (Cylulko-Wróbel 2014). In the case of higher education, there are no such elements (apart from the thematically oriented studies on health protection), which does not mean that health promotion is not possible. A direct role in this process may be played by the sports activation of students and other members of the academic community in the form of participation in training sessions in sports sections and academic competitions, which are mostly organized in Poland by the University Sports Association (AZS). For several years, the sports offer for students with disabilities has also been systematically growing. They may affect the gradual elimination of inequalities in health, i.e. differences that are considered unfair, unacceptable, harmful and immoral. (Woźniak-Holecka 2012, Crombie et al. 2005). They result, among others, from social differences, they are not the result of free choice and it is assumed that their elimination is, at least assumed, possible (Bartley 2004).

The academic community is made up of current young people who are still shaping their world creations, including discovering the burden of taking care of their own health. Particular attention should be paid to the group of people with disabilities. For them, the tasks in the field of health care are also from the point of view of their limitations and conditions to be disputed. These limitations may have a holistic effect on their health, both physically, mentally and socially, and so in the same way as health, has been defined by the World Health Organization for many years (Huber et al. 2011). Many researchers consider health promotion among people with disabilities to be one of the top priorities of public health (Rimmer 1999, Rimmer, Rowland 2008). Actions by national and regional governments to promote sport and physical activity among people with disabilities is also being investigated (Hoekstra et al. 2019).

The issue of health promotion and physical activity among students, or more broadly, the academic community is quite often discussed in scientific publications relating to the situation in Poland (Grajek et al. 2021, Szczepaniak 2020), as well as in relation to the situation in other European countries (Juříková 2020, Glazkova et al. 2020, Silva Cortés et al. 2015). Sport is considered by some researchers as a tool for health promotion, including as an emanation of corporate social responsibility in this area (Hills, Walker, Barry 2019). The influence of the economic situation on participation in physical activities should not be forgotten either (Huterska et al. 2020), which means that the involvement of governmental, local and non-governmental institutions is also extremely important in this area.

However, researchers rarely focus on academic sport. The few scientific publications on academic sport in Poland concern, inter alia, the impact of AZS activities on the development of a sports career (Łosień et al. 2017), activities of AZS clubs and their role in the promotion of sport and sports competition (Suchecky 2015). However, there are no studies on the academic sport of people with disabilities in Poland, including no such studies on the impact of this phenomenon on health promotion among this group of people. Due to the rapid development of this part of sports activity in Poland, it was found that it is worth undertaking such scientific considerations.

The main aim of the article is to show the role of academic sport in promoting health among people with disabilities in university environments, in particular among disabled students.

### **Material & methods**

The study uses a literature query of scientific articles, in particular those indexed in the SCOPUS database. The analysis of legal acts concerning sports competition in Poland was used, including the act on sport and internal acts of AZS - the Statute of the University Sports Association, General Regulations of the Polish Academic Championships, General Regulations of the AZS Polish Integration Championships, source documents, in particular the regulations of sports disciplines published by sports associations .

The work also uses statistical data provided by the AZS Main Board, including data on the number of participants in the competition, the number of universities participating in the competition cycles, also by region of Poland, sponsors and co-financing units, data on the level of participants' disability.

An important element of the work is netography, i.e. the analysis of information from websites published by AZS units - including the Facebook page of the AZS Polish Integration Championships, which are a kind of chronicle of events and websites of some sports associations / federations. Case reports - sports events for students with disabilities were also used.

### **Results**

Academic sport is a specific type of human physical activity in which members of the academic community take part. Among academic athletes, we can also find people with disabilities, for whom participation in sports activities and competitions is quite a challenge. It is also an opportunity for physical and mental development, as well as a form of health promotion among such people, especially due to the integrative nature of competitions organized at the academic level (Suchecky 2016).

The University Sports Association (AZS) is the most numerous academic organization in Poland, with nearly 40,000 members (in 2019). The Polish University Championships and the University Championships of individual regions organized within the framework of the Association (eg. Silesian University Championships, Lesser Poland University Championships) constitute the basic system of competition between universities. Both professional athletes, including Olympians, and students who practice their sports disciplines as an amateur as part of activities organized by clubs and universities train in AZS university clubs. (Zawadzki 2008, Hanusz, Korpak 2014).

The main legal act regarding sports activities in Poland - the Sports Act does not mention health promotion at all. The main and practically only purpose of such activities is to achieve a sports result. The health issues in these regulations relate only to the health care of athletes and the general health protection of athletes (Sports Act 2010). However, promotion of health and physical activity are among the main goals of the University Sports Association. They are expressed directly in the statute as: "action to promote health and health education adapted to the needs of various social groups" (Statute of AZS 2020), as well as indirectly for other purposes related to health and physical activity, such as: "promoting sport, physical culture and tourism, improving physical fitness and improving the health of the academic community", "promoting environmental

protection", "promoting physical culture and sport and rehabilitation of people with disabilities ", counteracting social pathologies, in particular drug addiction, alcoholism and nicotineism threatening the environment of learning youth "or" conducting scientific research in the field of sports, rehabilitation, biological regeneration, health protection and ecology" (Statute of AZS 2020). They are implemented for the entire academic community in Poland, including the disabled members of this community, although these activities are carried out on a clearly smaller scale.

The basis for the tournament activities of AZS are the Polish University Championships. The AZS receives financial support for their running and coordination from the ministry responsible for sport (in 2021 the Ministry of Culture, National Heritage and Sport). The Polish University Championships (AMP) have a one-year formula and cover 48 disciplines (academic year 2020/2021), in which the team classification is conducted. The championships also allow to select the best universities in the scale of the entire country, as well as in individual types. On the basis of general classifications, titles and medals are awarded to the leading schools of technology, universities, social and natural sciences universities, physical education universities, medical, vocational and private colleges. (AMP Regulations 2021).

Their counterpart for students - athletes with disabilities is to be the AZS Integration Polish Championships. They are played on the basis of the general regulations of the cycle, in which there are goals listed, among which you can find goals that directly (goals number 1, 4, 6, 8, 10) or indirectly (goals 2, 5, 9, 11) relate to the health promotion among students with disabilities (General Regulations of AZS Integration Polish Championships 2021):

- „1. Activation of people with disabilities through sport and activity in the University Sports Association.
2. Review of sports, educational and organizational work of AZS Clubs.
3. Sports level test, selecting the AZS Integration Polish Champion in individual sports disciplines.
4. Popularization of physical culture and sports competition in the environment of people with disabilities.
5. Acquaintance and implementation of Paralympic sports disciplines.
6. Integration of people with disabilities through sport.
7. Promoting the logo, name and colors of the university and the University Sports Association.
8. Counteracting social pathologies, in particular drug addiction, alcoholism and nicotineism, which threaten the learning environment of young people.
9. Acting for the organization of volunteering.
10. Dissemination and promotion of sport for people with disabilities.
11. Popularization of active recreation among people with disabilities."

It is noteworthy that in 2020 the University Sports Association for the first time appointed the Vice-President of the Association for people with disabilities sports. In the same year, the Council for Persons with Disabilities' Sport was established at the AZS Main Board, which included activists, coaches, section supervisors and players of sports sections for students with disabilities (azs.pl 2021).

In 2020, the AZS Polish Integration Championship was played in 12 disciplines (including three of a show character), which, unlike the Polish University Championships, most often have permanent organizers:

- Bowling AZS Polish Integration Championship;
- Swimming AZS Polish Integration Championship;
- Boccia AZS Polish Integration Championship;
- Chess AZS Polish Integration Championship;
- Goalball AZS Polish Integration Championship
- Table Tennis AZS Polish Integration Championship;
- Billiards AZS Polish Integration Championship;
- E-Sport AZS Polish Integration Championship (as a show discipline);
- Sailing AZS Polish Integration Championship (as a show discipline);
- Sport Shooting AZS Polish Integration Championship;
- Badminton AZS Polish Integration Championship;
- Showdown AZS Polish Integration Championship (as a show discipline).

Swimming as part of the AZS Polish Integration Championship does not differ much from swimming for the disabled. The competitions are played in a twenty-five meter pool at various distances and styles, and in relays. Among the significant differences, one should mention in particular the competition in various categories of disability, which results in a significant increase in the number of competitions during the Championship.

Bowling is often considered a party game, but also an integration game. The rules during the AZS Polish Integration Championships do not differ significantly from those generally accepted. The goal of the players is to capture as many pins as possible (out of 10 in line) in two throws. In the event of all pins being knocked out in the first throw (so-called "strike") - points corresponding to the number of pins knocked in the next two throws are added to the result of this throw. If all pins are knocked out in two throws in one round (the so-called "spare"), the results of this throw are scored with points corresponding to the number of pins knocked in one successive throw. The game consists of 10 rounds, and in each round the player is entitled to two throws

(except for the last round where in the event of a "strike" or "spare" the player is entitled to a third throw). The maximum number of points that can be obtained is 300 (Rules of the game in sport bowling 2012).

Boccia is a discipline for everyone, but it has gained the greatest popularity among people with disabilities, in particular in wheelchairs. This sport engages both body and mind, acting therapeutically. It is a way to integrate people with physical disabilities with people without disabilities: in sports clubs, non-governmental organizations, schools, rehabilitation centers. As for the rules of discipline, it should be mentioned that the object of the game is to throw a white ball onto the court and then to place as many balls of one color as possible in its immediate vicinity. The player who starts the game throws the cue-ball into the court and throws his ball as close to the white as possible. Then the opponent plays. A player of the team whose ball is farther from the opponent's ball in relation to the white ball then throws. When throwing balls, players may move the balls in play, smash already set balls, trying to place as many balls of their color next to Jack (the white ball) as possible. Boccia is a game that encourages thought, tactical planning of the game and attempts to predict the opponent's moves. As soon as the players have thrown all the colored balls, the round ends and the points are scored. The side whose balls are closer to the Jack (the white ball) than the nearest ball of the opposing side scores for the round. The side scores one point for each such ball. The score is recorded in a special match protocol. The side with the most points in the match wins. Boccia can be played individually and as a team (International Rules of Boccia 2018).

The AZS Polish Chess Integration Championships are played on similar rules to other chess tournaments. An individual tournament is played in the Swiss system, i.e. each player plays 9 duels with other players who are associated on the basis of a similar ranking in a given tournament (e.g. a player who won all matches after 5 rounds, probably in the sixth round will meet another player who won 5 times). The team classification is not created, as in the case of the Polish Academic Championships, on the basis of an individual tournament and a team tournament, but on the basis of the results of the two best players representing each university.

Goalball is a sports discipline dedicated to the blind, which to some extent is similar to handball. Teams consist of three people who are blindfolded and can only be guided by their hearing. The object of the game is to score a goal by throwing the ball into the opposing team's goal and rolling it across the field. The ball has bells inside it that enable the defending team to defend themselves with the sounds they hear. Due to this, matches are played in complete silence. In the event of the AZS Polish Integration Championship series, the players do not have to be blind, but they compete in goggles that prevent them from seeing the ball and the pitch.

In the case of table tennis, it is similar to swimming - the course of the tournament is similar to that of able-bodied players, but the tournament is divided into categories related to the type of disability of the players. The team classification is also a medal classification of the tournament.

Sport shooting is defined as the general activity involving the use of firearms or pneumatic weapons in the form of rifles, pistols and shotguns (clay pigeon shooting). In the case of AZS Polish Integration Championships, the competition is played in one type of weapon (in 2020, a sports rifle) on the equipment provided by the organizer. The following classifications were taken into account: individual for women, individual for men and the team for universities.

Badminton as a discipline entered the program of the AZS Polish Integration Championships in 2020. It is a racket sport involving piercing a feather or synthetic shuttle over the net. These competitions do not differ much in their rules from the classic game of badminton. However, they are played only individually in 10 categories, taking into account the gender and type of disability of the players (Hoft 2020a)

Sailing is a difficult and relatively dangerous sport, especially for inexperienced people. For this reason, the Sailing AZS Integration Polish Championships are of a more recreational nature - the helmsman of each boat is a professional sailor, while the crew can be created by students from various universities. Based on the results, the classification of the crews is determined without division into sex or disability categories.

E-sport appeared in the competition in 2020. This is, on the one hand, the result of the increasing popularity of electronic sport in recent years, and on the other hand, the result of the ongoing COVID-19 pandemic and the transfer of increasing student activity to the Internet. The competition itself in the only edition so far was played on the Discord platform in the computer game "Rocket League". Only one individual classification was chosen, regardless of gender.

The Billiards AZS Polish Integration Championship is played in the "eight ball" competition according to standard rules, due to the fact that it is the most popular and widespread variety of pool. The competition is played in the competition of men and women without any division into categories of disability.

The Showdown AZS Polish Integration Championship was played as a show competition. This discipline is similar to table tennis combined with air hockey. The game takes place on a special table framed with bands. It is played with a plastic ball with a bell inside, which is bounced with wooden rackets. The players' hands are protected against hitting the ball by special gloves. There is a vertical screen between the players that divides the table into two halves. They wear blindfolds throughout the game and rely solely on their senses of hearing and touch (Hoft 2020b).

The competition in 2020 was played in eight Polish cities. They were attended by representatives of 30 universities from most Polish provinces (voivodeships) – Table 1.

Table 1. Number of universities participated in AZS Integration Polish Championship – 2020 edition.

Voivodeship	No. of universities	Voivodeship	No. of universities
<i>Lower Silesian (dolnośląskie)</i>	3	<i>Subcarpathian (podkarpackie)</i>	1
<i>Kuyavian – Pomeranian (kujawsko-pomorskie)</i>	2	<i>Podlasie (podlaskie)</i>	none
<i>Lublin (lubelskie)</i>	3	<i>Pomeranian (pomorskie)</i>	1
<i>Lubusz (lubuskie)</i>	1	<i>Silesian (śląskie)</i>	5
<i>Łódź (łódzkie)</i>	1	<i>Holy Cross (świętokrzyskie)</i>	none
<i>Lesser Poland (małopolskie)</i>	4	<i>Warmian-Masurian (warmińsko-mazurskie)</i>	1
<i>Masovian (mazowieckie)</i>	3	<i>Greater Poland (wielkopolskie)</i>	5
<i>Opole (opolskie)</i>	none	<i>West Pomeranian (zachodniopomorskie)</i>	none

Source: University Sports Association Main Board / Dawid Piechowiak.

Although the number of universities participating in the AZS Polish Integration Championship series may seem quite large (30 in 2020), comparing it to about 370 universities in Poland, including about 130 public universities (Science in Poland 2019), as well as the fact that some regions were not represented at all, it can be said that there is a huge gap in the access of disabled students to sports adapted to their abilities and thus the promotion of health and physical activity.

From the 2021 edition to the AZS Polish Integration Championships, it was decided to include new sports disciplines: parasnowboard, paragliding, athletics, weightlifting, sitting volleyball and fencing. On the one hand, this is to encourage new students to participate in the cycle, and on the other hand, to activate the existing participants more. So far, five editions of the AZS Polish Integration Championships have been held, which annually enjoy greater interest of both individual universities and students themselves. The numerical information on the individual editions is presented in Table 2.

Table 2. AZS Integration Polish Championship 2016 – 2020. Funding, disciplines, participants.

Year	2016	2017	2018	2019	2020
<b>Co-financing</b>	State Fund of the Rehabilitation of Disabled (PFRON); participating universities	participating universities	State Fund of the Rehabilitation of Disabled (PFRON). Ministry of Sport and Tourism, Ministry of Science and Higher Education, participating universities	State Fund of the Rehabilitation of Disabled (PFRON); participating universities	State Fund of the Rehabilitation of Disabled (PFRON). Ministry of Sport, participating universities
<b>Official sponsors</b>	none	none	none	none	Grupa LOTOS S.A.
<b>Number of sports</b>	6	7	7	7	9 (+3 as show competitions)
<b>Estimated number of participants</b>	200	250	300	400	500
<b>Number of starting sports sections</b>	7	12	15	20	30
<b>Number of coaches</b>	10	15	20	30	50

Source: University Sports Association Main Board / Dawid Piechowiak and XXVIII Zjazd AZS, 2020.

According to the information provided by the Vice-President of the AZS Main Board of People with Disabilities Sports, in 2020 the participants of the competition had a varied level of disability - 19% of students had documents confirming a slight degree of disability, the most - 68% - moderate, and 13% - severe.

It should be taken into account that the data on the number of participants provided by the AZS Main Board concern individual starts in the competition. Due to the lack of specialization of the majority of students with disabilities and competing in more than one discipline of the same people, it is not possible to assess exactly how many people participated in particular seasons in the competitions in question. However, there is a clear increase in interest, both on the part of students, coaches, universities and financing units.

## Discussion

Based on the data provided by representatives of the University Sports Association, as well as published reports and press releases posted on websites and in social media, the growing popularity of academic sports competitions among people with disabilities can be noticed. During the five editions of the AZS Polish Integration Championship, the number of starts in championships increased by 150% (2016 to 2020). This increase was recorded even in 2020, when the whole world was struggling with the COVID-19 pandemic, number of sports competitions were canceled, including the Tokyo 2020 Olympic Games (moved to 2021). Despite these global problems, the number of competitors' starts as well as the number of participating in competitions in sports sections of individual universities has increased. This could, of course, be influenced by the increased number of events in the series, including three unplanned at the beginning of the season show disciplines.

The sports offer for people with disabilities as part of the Academic Sports Association is addressed to people with various types of disabilities and at various levels of disability. However, these issues are considered only in some disciplines during the AZS Polish Integration Championships, which can sometimes seem unfair. However, the organizational and cost aspects of implementing such events must not be forgotten, as well as the fact that if too many starter categories were created, some of them would be single people, which could distort the results.

However, this does not change the fact that the interest in such sports activity among people with disabilities is increasing. It is also worth noting the interest of sponsors and entities co-financing the AZS Polish Integration Championship. 2020 was the first year in which we can speak of the sponsor of the cycle, which is Grupa LOTOS S.A., a state-owned Polish oil company. In addition, the competition received funding not only from participating universities and the State Fund for Rehabilitation of Disabled Persons, but also from the Polish government, specifically the Ministry of Sport, which was not always the rule.

## Conclusions

Students with disabilities are a group of people at universities who have specific needs, both in terms of health and related to the implementation of their goals, dreams and intentions. For some of these people, participation in academic sports competitions is a chance for integration among other students who often have similar problems. It is also often a chance for the first physical activity in a long time, combined with regular physical exertion, a change in eating style and setting specific goals, not necessarily related to studying at university. The offer for youths and young adults in the case of sports for people with disabilities is on the one hand quite poor in Poland, and on the other hand completely undiscovered by potential interested parties. Thus, the University Sports Association by creating the AZS Polish Integration Championship not only fills the gap on the market of academic sports competitions, but also contributes to the promotion of health, physical activity and the integration of a group of people who need them in a special way.

There is a clear increase in interest in sports and physical activity among students with disabilities. This increase is observed despite the COVID-19 pandemic in the 2020 season, which in the case of sports competitions, not only academic ones, is a certain phenomenon. However, this popularity must not obscure the long path that both the representatives of the Academic Sports Association and, in particular, universities have to go to to reach interested people with an offer addressed to the disabled. Still many universities, including large public ones, do not take part in this type of competition, and some students who could potentially be interested in participating do not know that such initiatives are being undertaken at all. Particularly noteworthy are entire regions of Poland, which during the entire season did not have a single representative in the AZS Polish Integration Championship. Although they are not the largest voivodships, there are as many as four of them, and the voivodeships account for nearly 5 million inhabitants, which is several percent of the country's population. This is a big gap, but also an area to be developed and a challenge for the future.

Undoubtedly, this paper, which is largely descriptive and review work, does not allow for a full presentation of the role of academic sport in promoting health among students with disabilities, however, a clear increase in the interest of players themselves - students, universities, government agencies, public institutions and commercial companies shows how important this initiative is.

To explore this topic, it seems necessary to conduct direct research in the form of a direct interview or a survey among the participants of the AZS Polish Integration Championship. They will give the opportunity to verify at what level the competitions in the AZS Polish Integration Championship's affect their physical activity and taking care of their own health. The result may also be the answer whether there is a noticeable improvement in their physical, mental and social fitness, and therefore whether it is possible to talk about improvement or maintaining health.

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