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Physical Education and Sport for Children and Youth with Special Needs

Researches – Best Practices – Situation

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Introduction

You are holding a book "Physical Education and Sport for Children and Youth with Special Needs: Researches - Best Practices – Situation" prepared by FIEP.

The book is part of the 4th Physical Education World Wide Survey, which is carried out by UNESCO in cooperation with FIEP and their partners. The publication is part of one of its lines, focusing on mapping the basic characteristics of physical education and physical activities of children and youth in the world at individual levels of schools, from pre-school education to universities.

In 2017 the book "Physical Education in Primary School: Researches - Best Practices - Situation", edited by D. Collela, B. Antala and S. Epifani, was published by Pensa Multimedia in Italy and has 502 pages. 102 authors from 27 countries and 5 continents participated. In 2018, it was followed by a publication "Physical Education in Secondary School: Researches - Best Practices - Situation", published by the University of Montenegro in cooperation with the Montenegrin Sport Academy. The editors were S.Popovič, B.Antala, D.Bjelica and J.Gardaševič. It had 343 pages and was prepared by 84 authors from 24 countries and 5 continents. The publication "Physical Education in Early Childhood Education and Care: Researches - Best Practices - Situation" was published in Slovakia by the Slovak Scientific Society for Physical Education and Sport in 2019. Its editors were B. Antala, G. Demirhan, A. Carraro, C. Oktar, H. Oz and A. Kaplánová. It had 464 pages. 120 authors from 32 countries from 5 continents participated. In 2020 a book "Physical Education in Universities: Researches - Best Practices -Situation" was prepared also for celebration of 60th anniversary of Faculty of Physical Education and Sports Comenius University in Bratislava in Slovakia where FIEP have already many years its European seat. Book celebrated also 80th anniversary of Faculty of Chemical and Food Technology from Slovak University of Technology in Bratislava. Its editors were M. Bobrík, B. Antala and R. Pělucha. 136 authors from 28 countries and five continents participated in the book.

A series of these 4th Physical Education World Wide Survey publications will continue in 2022 with the publication of ""Physical Education and Physical Activities of Children, Youth and Adults and Healthy Active Living: Researches - Best Practices - Situation".

This book is divided into fourth parts. In the first part of the publication called "Researches", we bring the latest research findings aimed at exploring the physical activity and sport of children and youth with special needs. The second part, the "Best Practices" brings examples of good practice from different countries of the world and the third part "Situation" is focused on presenting knowledge related to the characteristics of the state of the issue in various countries in the world. Last, fourth part of the book is focused on French language write articles. Due the agreement between FIEP and CONFEJES, the book was open for articles write in French language also. Eight articles, especially from African countries, are situated in this last part of the book.

178 authors from 32 countries and five continents participated in the book, of which 18 were European countries/regions (Bulgaria, Czech Republic, Croatia, France, Hungary, Italy, Ireland, Lithuania, Luxembourg, Netherlands, Romania, Russia, Scotland, Serbia, Slovakia, Spain, Ukraine, United Kingdom), 3 countries from America (Brazil, Mexico, USA), 4 countries from Asia (Indonesia, Lebanon, Malaysia, Singapore), 5 countries from Africa (Cameroun, Egypt, RSA, Senegal, Tunisia) and 2 countries from Oceania (Australia, Samoa). Therefore, the publication brings a broad international perspective on the issue of physical education and sport of children and youth with special needs.

Preparation of the book was a part of scientific project "Physical and Sports Education and its Quality and Potential in Promoting Health from the Perspective of Pupils, Teachers and Parents" supported by The Scientific Grant Agency of the Ministry of Education, Science, Research and Sport of the Slovak Republic (VEGA) with number 1/0523/19.

A thank you goes also to the reviewers who, through their comments and advice, helped the authors improve the quality of their contributions.

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Development of Arm Wrestling of Persons with Injuries of the Musculoskeletal System in the World and the Russian Federation

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Abstract

The article is devoted to the analysis of the development and assessment of the state of arm wrestling as a specific sport in the world and in the Russian Federation for the disabled with injuries of the musculoskeletal system (PODA). The work was carried out on the basis of studying the data of special literature, sports classifiers, pedagogical observation of competitions, analysis of the protocols of competitions held in Russia and in foreign countries. The article deals with the features of the classification of disabled athletes with injuries of the musculoskeletal system engaged in arm wrestling, the features and necessary conditions of their competitive activity. Brief historical data on the origin and development of arm wrestling as a new and popular sport for ordinary athletes and athletes with disabilities who have injuries of the musculoskeletal system are given. Information about the results of the World Championships in Arm Wrestling among the disabled from injuries of the musculoskeletal system to 2013 is presented. Some features of the current state of arm wrestling as a relatively new sport for people with musculoskeletal disorders in the world and in the Russian Federation are highlighted. As the most expressive trends in the development of arm wrestling for the disabled with the defeat of the musculoskeletal system are identified: the established status of this sport for the disabled in the international arena and its place among other sports disciplines; development of differentiation and classification provisions for athletes with disabilities with musculoskeletal disorders engaged in arm wrestling in Russia and in the world; formation of the organizational structure of arm wrestling as a sport for people with musculoskeletal disorders; identification of countries whose representatives have become permanent leaders in arm wrestling among people with disabilities with AML to date. In conclusion, an optimistic perspective is formulated in the development of arm wrestling as a new sport for the disabled with injuries of the musculoskeletal system for the near future.

Key words: Disabled people, Sports, Arm wrestling, Injuries of the musculoskeletal system, Development, Adaptation

Introduction

Sports for the disabled have recently become more popular, and the number of people with disabilities involved in sports is increasing. Currently, in Russia and all over the world accumulated experience in the use of means and methods of adaptive physical education and adaptive sports at disabled people and people with limitations in health status, including those with defeat of the musculoskeletal device (Abelian A. G., Stepyko D. G., & Ostashenko E. Yu., 2010; Barazgova E. S., Savvulidi M. P., 2017; Briskin Y. A., Evseev, S. P., & A. V. Perederiy, 2010; Nikiforova O. N., Cheshikhina V. V., 2016). Scientific research is being conducted in this direction, but there are still few scientific developments and recommendations concerning arm wrestling among disabled people with musculoskeletal disorders (hereinafter referred to as injuries of the musculoskeletal system). The relevance of this study is to fill in the scientific data on the chosen field of research. The specific purpose of the article is to assess the development of arm wrestling among people with disabilities with AML, its current state and to identify some of the main trends in its development in the world and in Russia.

The results of the study and their discussion

According to our data and research colleagues' characteristic activities of persons with injuries of the musculoskeletal system is a long-existing stereotype of inactivity, greatly reducing the adaptive capacity, and the distortion of the cardiovascular and respiratory systems as a result of inability or limitation of arbitrary hold the body upright. Most people with spinal injuries are limited in the development of new types of motor activity in a sitting or reclining position. Congenital absence of limbs or the consequences of amputation leads to distortion of the main locomotives due to the violation of the balancing reactions of the body, which leads to additional energy expenditure on maintaining balance. The body's outline is also distorted as a result of the absence of a part of the peripheral part of the motor analyzer of amputated limbs. Compensatory postures when performing basic locomotives or sports activities require additional special types of training to achieve optimal results.

Athletes with mobility limitations are grouped into classifications based on their physical abilities, which aims to create a level playing field by grouping athletes into classes based on their ability to perform a particular activity. To a certain extent, this is similar to grouping athletes by age, gender, or weight.

Currently, European and World Championships in non-Olympic adaptive sports are being held, and the Paralympic and Deaflympic Games are becoming, along with the Olympic Games, the largest events in world sports with an ever-increasing level of competition. And in each type of adaptive sport, the classification code of the IPC (International Paralympic Committee) and international standards are applied. The long-term strategy for the development of classification policy in the Paralympic movement was defined by the leadership of the International Paralympic Committee (IPC) in 2003. And in 2007, the International Paralympic Committee (IPC) published a Classification Code (Van Dijk A., Dadova K., & Martinova I., 2017). Paralympic sport is an integral part of sports that has developed in the form of a special theory and practice of preparing people with disabilities of the musculoskeletal system, vision and intelligence for sports competitions and participating in them for the purpose of physical rehabilitation, social adaptation and integration, forming a healthy lifestyle and achieving sports results on the basis of creating special conditions. Arm Wrestling has settled in the Paralympic sport relatively recently.

Arm Wrestling is the oldest type of martial arts, which allows you to show the strength and power of the muscles of the hands, as well as show your technique. Even in the rock paintings of the ancients, researchers find illustrative evidence of the existence of this type of competition among people. On the territory of Ancient Russia, this type of martial arts appeared in the X century, then became a common type of duels among visitors to pubs and inns. By the 17th century, arm wrestling was practiced almost everywhere. Arm Wrestling was awarded the status of a sport in the United States, in the city of Petaluma, California. The name arm wrestling comes from the English words - "hand wrestling". The world owes the definition of arm wrestling as a sport to the American drivers of long-range trucks, who, stopping at roadside cafes for recreation, arranged tournaments at the table. The first arm wrestling tournament was organized by the journalist Bill Soberanes, and in the fall of 1962 the first World Championship among men was organized, and in 1964 among women (Usanov E. I., Chugina L. V., 2010).

During the period of its formation, arm wrestling has undergone many changes, including changes in various rules of combat. During the formation of the sport, competitors could fight standing, sitting, lying down. In this regard, there were no obstacles to the introduction of armsport among people with disabilities.

Arm Wrestling with injuries of the musculoskeletal system, as a type of adaptive sport, on the example of Russia, has now become the most important social phenomenon that has an active impact on reducing social disunity, consolidating society, developing, socializing and integrating disabled people into the social process (Gonokhov A. G., Domashova E. V., & Kurnosova I. Yu., 2019; Grigorieva A. G., Lebedev M. O., 2016). The attractiveness of armsport for people with injuries of the musculoskeletal system is due to the fact that training, classes and competitions are available for a wide variety of categories of people with disabilities. Armsport with PODA is able to meet the demanding needs of people with disabilities in motor activity, as well as help in improving spiritual, social, intellectual and physical development. At the same time, the sport does not impose any gender, age, religious or other restrictions (Kuznetsov S. A., 2014; Kulagina E. V., 2016; Kazantsev A. Yu., 2018). It is of great importance for people with disabilities, people who have been injured and have finished their sports careers. Practice shows that armsport allows you to systematically engage and develop for many years, regardless of age, injuries, as well as after the end of the main sports career.

Arm Wrestling with injuries of the musculoskeletal system until 2013 developed without having its own status in the framework of joint training and competitive activities with healthy athletes. Throughout the entire period of the existence of arm wrestling, competitions were always held among the disabled. Disabled people competed among healthy athletes at a standing table (those who could stand or those who had at least some support on their feet). They were brought, helped to stand at the table and the fight began, additional referees were allocated, whose duties included insuring the athlete from falling. In addition, separate competitions were held among the disabled at the table for sitting wrestling. For the disabled, who could stand, it was a prerequisite to fight sitting down. This was the first experience of creating a level playing field. All arm wrestling championships until 2013 were held as part of the Championships among healthy athletes (Nikulin I. N.., 2013, 2016, 2017, 2018, 2019, 2020).

For arm wrestlers with injuries of the musculoskeletal system, the table was lower than for athletes fighting standing up. Competitions were held among athletes with diseases of different nosological groups without taking into account the characteristics of people with disabilities, without using a special classification. In addition, there were no rules that could be applied for

judging matches among the disabled. Judged by the General rules in the arm wrestling that did not contribute to the mass development of arm wrestling with sci, as athletes with sci, especially disabled athletes with cerebral palsy (CP) and injuries of the spine were initially at a disadvantage with other athletes that have diseases of the various nosological groups. The priority was that all athletes had to fight sitting down with athletes moving in wheelchairs. In any rules, the regulations did not prescribe the permissible norms, the dimensions of wheelchairs. Sports, active, passive and even electric strollers were used. Passive, and especially electric strollers were massive, bulky and very heavy, wheelchair athletes could not place their legs under the armstall, fights were held almost at arm's length.

When installing the grip for athletes with disorders of the central nervous system (CNS), cerebral palsy and spinal injuries, the judges experienced difficulties, since the rules did not take into account the features of diseases of athletes with injuries of the musculoskeletal system – contractures, tremors and spastic movements that are characteristic of this category of athletes. Wrestling for athletes with paralysis or amputated one of the upper limbs was also held together with other athletes. The rest of the amputated limb, the paralyzed upper limb was not fixed, and this prevented the fight. The competition for them was conducted on one hand. When conducting such competitions, the weight of amputated limbs and various devices (prostheses, orthopedic inserts, shoes, etc.) was never taken into account. The weight of athletes could be a difference of 20 kg or more. An example was amputees who removed their prosthetics and weighed without them, falling into a lower weight category. This was contrary to the creation of a level playing field.

There were not enough disabled athletes, men's weight categories were fixed after 15 kg, women had only two weight categories. The weight categories were filled only slightly, there were some that represented 1-2 athletes, and some of them had 1 person or no one at all. Competitions, as a means of comparing their results with the achievements of other athletes, did not fulfill a functional role. Athletes, leaving the Championships as prize-winners, were not really such. There was no opportunity to conduct equal matches, analyze and compare their results and their opponents. All these factors did not contribute to the development of arm wrestling among people with injuries of the musculoskeletal system (Abalyan, A. G. 2010).

In recent years, the largest role in the representation of arm wrestling is played by the international organization WAF-the World Arm Wrestling Federation, which controls all aspects of hand wrestling. WAF was founded in 1967. After the passage of time since 1996, hand wrestling has received the international name "armsport" (Usanov E. I., 2010).

The first World Championship for disabled athletes in arm wrestling was held in 1987 in India. 14 disabled athletes from 6 countries were represented at this tournament. This first Championship was the impetus for the development of armsport for people with injuries of the musculoskeletal system. It was at this Championship that the support athletes (athletes with injuries of the musculoskeletal system) declared themselves and began to position themselves as a separate class in arm wrestling. The concept of "arm wrestling with injuries of the musculoskeletal system " appeared. Before that, athletes with injuries of the musculoskeletal system took part in competitions among athletes without physical restrictions, while showing perseverance, courage, willpower, making a worthy competition for healthy athletes. Each match involving an athlete with an injury of the musculoskeletal system in the hall was greeted with standing ovation.

Armsport championships among athletes with injuries of the musculoskeletal system began to be held regularly in the 90s and 2000s, the venue, the number of participants and the results of the leading teams in the overall standings are shown in Table 1.

Table 1 Data on the holding of the World Championships in Arm Wrestling among athletes from injuries of the musculoskeletal system to 2013 (according to the WAF version)

year/ according to the WAF version	Town	Country	Number of participating countries	Number of athletes	Team standings
1997	Guawahati	India	6	14	Russia, USA, Georgia
1998	Thunder Bay	Canada	4	12	Russia, USA, Canada
1999	Vladikavkaz	Russia	6	16	Russia, USA, Canada
2000	Rovaniemi	Finland	5	11	Russia, USA, Georgia
2001	Gdynia	Poland	5	16	Russia, USA, Uzbekistan
2002	Springfield	USA	3	14	Russia, USA, Canada
2003	Ottawa	Canada	3	15	Russia, USA, Canada
2004	Durban	South Africa	6	16	Russia, Ukraine, Brazil
2005	Tokyo	Japan	6	22	Russia, Brazil, USA
2006	Manchester	Great Britain	7	12	Russia, Turkey, Brazil
2007	Veliko-Tyrnovo	Bulgaria	8	17	Russia, USA, Bulgaria
2008	Kelowna	Canada	6	15	Russia, USA, Canada
2009	Rosolina	Italy	8	22	Russia, Ukraine, Turkey
2010	Las Vegas	USA	6	17	Russia, USA, Canada
2011	Almaty	Kazakhstan	11	30	Russia, Uzbekistan, Kazakhstan
2012	San Vincenti	Brazil	10	50	Russia, Brazil Turkey
2013	Gdynia	Poland	10	34	Russia, Ukraine, Turkey

Thus, as can be seen from Table 1, the range of countries involved in the competition is becoming wider with the development of armsport. This, in turn, underlines the importance of developing armsport, as well as the importance of the participation of persons with injuries of the musculoskeletal system in such competitions. It is noted that in the period up to 2013, 5 World Championships were held in different cities and countries. Based on this, we can talk about the growing interest of people with disabilities in arm sports and the strengthening of the process of spreading arm wrestling in Russia and in the world.

Since 2013, armsport in Russia has achieved significant development, and Paralympic athletes begin to compete in competitions that have a separate status. Individuals with injuries of the musculoskeletal system have the opportunity to show their technique and skills not only in general competitions, but also in separately organized tournaments for them, both all-Russian and international (Nikulin I. N., 2018).

By the decision of the Presidium of the Russian Armwrestling Federation of March 23, 2018, a Committee for the Development of Para-Armwrestling was established in the structure of the Russian Armwrestling Federation. The main task of the Committee is to create equal conditions for disabled athletes at arm wrestling competitions in the Russian Federation. No sports event in arm wrestling among disabled athletes in the Russian Federation can be held without the approval of the Committee.

In contact types of martial arts (wrestling, boxing, karate, armsport, etc.), the possibility of implementing the tasks of socialization of disabled people is very limited due to the presence of a wide variety of options for disabled people of different categories, with a large range of differences in their morpho-functional shortcomings (auditory, visual, musculoskeletal, etc.), which require a variety of environmental conditions. In this regard, the key to improving the organizational aspects of sports is the development and implementation of the classification of athletes with injuries of the musculoskeletal system to equalize their opportunities in the competitive process.

Classification – the process of dividing athletes with disabilities into functional classes to ensure that athletes can compete on equal terms with other athletes with disabilities. The classification gives confidence that the pathology present in the athlete meets the requirements of the sport (Gonokhov A. G., 2019). Each type of adaptive sport applies international standards and the IPC Classification Code, developed and adopted by the International Paralympic Committee. The long-term strategy for the development of classification policy in the Paralympic movement was defined by the leadership of the International Paralympic Committee (IPC) in 2003. And in 2007, the International Paralympic Committee (IPC) published the Classification Code (Barazgova E. S., 2017; Van Dijk A., 2017). As part of the solution of the issue of uniform rules for arm wrestling, in order to ensure fair competition conditions, the federation has developed a special classification system in armsport. This classification is only used in the Paralympic Movement. All athletes in arm wrestling are divided into four sports classes (Table 2).

If the athlete does not have a minimum level of defeat, then he receives the class "not eligible" (NE) and is not eligible to participate in arm wrestling competitions for the disabled. It was decided not to take into account the damage to the upper limbs, since in armsport the hands must be healthy. Thus, in fact, an athlete who is recognized as NE, that is, "not eligible" can compete among healthy athletes.

Table 2 Classification of Paralympic Arm-wrestling athletes

Classification group	Characteristics of the class	The main criterion for getting a class
ARM1	Athletes with injuries of the musculoskeletal system who compete sitting in wheelchairs	Lack of support on both legs, for example, as in athletes with spinal injuries at the level of the thoracic spine and above, athletes with polio, athletes with high amputation of both thighs or with a corresponding underdevelopment of the limbs
ARM2	Athletes with injuries of the musculoskeletal system who fight standing up	In the case of lower limb amputation-the minimum criterion of suitability for the class is amputation at the level of the ankle joint
ARM3	Athletes with a visual impairment compete with bandages on his eyes	Different degrees of vision loss and impairment
ARM4	Deaf athletes	Deafness

In addition, the modern armsport classification introduces the following classes and updated requirements depending on their functionality: athletes fighting sitting – PID class; athletes fighting standing-PIU class; athletes fighting standing with free hand fixation-PIUH class. In Russia in 2014, for the first time, the division of all athletes from the injuries of the musculoskeletal system into those who fight only sitting and those who can fight standing was tested. Thus, the functionality is somewhat equalized. So, a wheelchair athlete is no longer fighting with a walking athlete. This division into classes was successfully used at the IWAS World Games in Sochi in 2015.

Until 2014, there was no functional classification for athletes with physical disabilities. This category held duels at the table sitting, regardless of the degree of physical impairment. All competitions for the disabled were held within the framework of Championships and Championships for healthy athletes, in 2013 the IAFD was established. For the first time, an international classification in arm wrestling for athletes with physical disabilities has been developed. Classes were introduced: ARM 1, ARM 2, ARM 3, ARM 4 and ARM 5. So, in 2014, for the first time, equal conditions were created for athletes with physical disabilities. The IAFD lasted until 2017. Since 2018, this function has been transferred to the jurisdiction of the WAF. The developed classification was taken as a basis, almost unchanged. Only the class designations were changed. The classification system in armsport of persons with PODA now consists of three classes: ARM1, ARM2, and ARM5. The main criterion for determining an athlete of the ARM1 class is the inability to rely on both lower limbs. The ARM1 class includes athletes who move constantly in a wheelchair, compete sitting down and have the following injuries: bilateral amputation above the knee joints; underdevelopment or malformation of the lower extremities comparable to bilateral amputation above the knee joints; spinal cord injury with lower paraplegia, polio; muscular dystrophy with paralysis of both lower extremities; cerebral palsy with lower paraplegia and inability to move without a wheelchair.

Athletes with lower limb amputations/underdevelopment in the ARM2 class can compete in prosthetics. ARM2 class includes athletes who compete standing up and have the following injuries: unilateral or bilateral amputation below the knee; unilateral amputation above the knee; underdevelopment or malformation of the lower extremities comparable to unilateral / bilateral amputation below the knee or unilateral amputation above the knee; traumatic or congenital shortening of the lower limb with a difference in the length of both limbs of more than 7 cm.; spinal cord injury (partial or complete), polio; decreased muscle strength as a result of muscular dystrophy, Spina bifida, Guillain-Barre syndrome; severe movement restrictions in the joints of the lower extremities, including ankylosis of the joints of the lower extremities, arthrogryposis of the lower extremities; cerebral palsy (paraparesis, hemiparesis, monoparesis, athetosis, ataxia, chorea); brain injury, stroke, multiple sclerosis with severe impairment of the functions of the lower extremities.

Wrestling in the ARM5 class is carried out on the healthy hand, the affected hand is fixed (tied) to the torso. ARM5 class includes athletes who compete standing up and have the following upper limb injuries: unilateral amputation of the upper limbs; underdevelopment or abnormality of the upper limbs, comparable to unilateral amputation of the upper limbs; polio with a pronounced decrease in muscle strength in the upper limbs; decreased muscle strength of the upper limbs as a result of muscular dystrophy, etc.; severe limitations of movement in the joints of the upper extremities, including ankylosis of the joints, arthrogryposis of the upper extremities; cerebral palsy (hemiparesis, monoparesis, athetosis, ataxia, chorea); brain injury, stroke, multiple sclerosis with severe disorders of the functions of the upper extremities.

The sports class in armsport is established if the athlete has a permanent injury that belongs to one of the functional categories specified in Table 3.

Table 3 Injuries of the musculoskeletal system

Functional category	Violation	Medical profile
Length of limbs	Complete or partial absence of limb bones, shortening of the limbs	Amputation, congenital agenesis or malformation of the extremities, congenital or traumatic limb shortening
Muscle strength	Decreased strength of individual muscles or muscle groups of the limbs or body: weakness, paresis or paralysis of the muscles, monoplegia, hemiplegia, paraplegia, quadriplegia	Spinal cord injury, Polio, Muscular Dystrophy, Spina bifida, Guillain-Barre Syndrome
Joint range of motion	Pronounced restriction of the amount of movement in the joints	Arthrogryposis of the lower extremities, ankylosis of the joints
Muscle tone	Increased muscle tone, spasticity	Cerebral palsy, brain injury, stroke, multiple sclerosis
Control of voluntary movements, involuntary muscle contractions	Lack of coordination, lack of control of voluntary movements	Ataxia, athetosis, chorea

The minimum eligibility criteria for participation in arm wrestling competitions among individuals with AML are presented in the table.4.

Table 4 Minimum eligibility criteria for participation in arm wrestling competitions among persons with injuries of the musculoskeletal system

Injuries of the musculoskeletal system	Criteria
Amputation/underdevelopment, shortening of the limb	Unilateral amputation of the lower limb, at least at the level of the ankle joint, or comparable underdevelopment of the lower limb. Unilateral amputation of the upper limb, at least at the level of the three metacarpophalangeal joints, or comparable underdevelopment of the upper limb. When shortened – the difference in the length of the limbs is at least 7 cm.
Violation of muscle strength	Reduction of muscle strength to 20 points in one or both lower limbs on a five-point scale (normally one lower limb is 40 points), to 80 points in one or both upper limbs (normally one upper limb is 120 points).
Restriction of movement in the joints	Ankylosis of the knee joint. Ankylosis of the three metacarpophalangeal joints. Ankylosis of one ankle joint is not considered a minimal lesion.
Increased muscle tone, ataxia, athetosis	If increased muscle tone, ataxia, and athetosis are determined only by a detailed neurological examination, and there is no obvious impairment of function, then the athlete is considered unfit to participate in arm wrestling competitions among persons with injuries of the musculoskeletal system. When conducting coordination tests ≤ 3 points (normally 5 points).

It should also be taken into account that the athlete must have at least one of the presented minimum criteria for eligibility to participate in armsport competitions among persons with injuries of the musculoskeletal system; low height is not a minimum defeat in the absence of other restrictions specified in Tables 3 and 4; persons who do not meet the requirements of the minimum eligibility criteria, but are unable to participate in armsport competitions due to chronic post-traumatic painful disorders, instability of the knee or ankle joints, are also considered unfit to participate in armsport competitions among persons with AML.

In 2017, the classification developed in Russia was almost completely adopted by the World Arm Wrestling Federation and became an integral part of international sports events. At the European Championships in Poland, all athletes were divided into two classes of persons with injuries of the musculoskeletal system – PID (sitting) and PIU (standing), a class for hard of hearing and deaf HI and a class for visually impaired and blind athletes VI. At the World Championships in Hungary, more classes were added to these classes for athletes with functional disorders of the upper extremities, fighting sitting PIDH and standing PIUH.

An important condition for the effectiveness of physical culture and adaptive sports in working with disabled people and people with disabilities is an individual approach to the training program, which takes into account the volume and intensity of physical activity, depending on age, injury, disability, and the rules and methods of conducting competitions are regulated by the functional classification. Disability poses a problem of adaptation to modern living conditions in a new capacity, which is almost always associated with the formation of the necessary motor skills, the development and improvement of special physical and volitional qualities and abilities. The social, spiritual and moral significance of the development of adaptive physical education and all kinds of adaptive sports for different nosological groups of disabilities is obvious.

Conclusion

1. To date, arm wrestling with injuries of the musculoskeletal system has established itself in Russia and other countries of the world as a full-fledged sport among the disabled and continues to actively develop in the international arena. This allows disabled people of young and mature age to better adapt to the conditions of life in today's changing society, to promote and introduce a healthy lifestyle among disabled people.
2. In adaptive sports, certain provisions of the international classification code are being improved, and the classification requirements in arm wrestling for athletes with injuries of the musculoskeletal system are being improved. These trends improve the conditions for holding arm wrestling competitions among the disabled and attract more new athletes to systematic sports.
3. The organizational structure of arm wrestling with injuries of the musculoskeletal system is being developed. A global organizational structure has been formed, with the World Arm Wrestling Federation (WAF) playing a leading role, which has gained great prestige in the sports world and has extensive international relations with other organizational structures.
4. Among the athletes participating in arm wrestling competitions with injuries of the musculoskeletal system, the leading position is occupied by representatives of Russia, Kazakhstan, Georgia and Turkey, who make many useful suggestions to the organizational, structural, and methodological development of arm wrestling. However, the circle of leading sports countries is expanding, and sports competition is becoming more intense, which indicates the continuing progressive development of this sport.
5. It is expected that in the coming years in arm wrestling for persons with injuries of the musculoskeletal system, as a new sport, there will be an active development of various indicators that record a significant increase in competitive, organizational, recreational, social adaptation, methodological, scientific and other activities.

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