

Satisfaction indicators of athletes with damage of the locomotor apparatus with the organization of competitions in cybattle

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Abstract

Objective of the study was to analyze the degree of satisfaction of athletes with lesions of the musculoskeletal system with the organization of competitions in cybatletics.

Methods and structure of the study. To achieve the goal of the study, a survey was conducted of athletes with lesions of the musculoskeletal system as part of open competitions in cybatletics, which took place from March to May 2021 on the basis of the Russian State Social University. The survey involved 80 people (58 men and 22 women). Athletes had to answer questions in which they assessed their attitude to holding and organizing kibatletics competitions on a 10-point scale.

Results and conclusions. A survey of athletes who took part in kibatletics competitions made it possible to identify the degree of satisfaction with the organization and conduct of the competitions. The degree of satisfaction was studied according to the following parameters: the general level of organization and holding of competitions in cybatletics; competition schedule; favorable atmosphere during familiarization with the track and the competition; catering; the quality of work of the refereeing team and volunteers.

Keywords: *skibathletics, quality of competitions, degree of satisfaction, athletes with musculoskeletal disorders.*

Introduction. The study of the quality of competitions allows to identify the need and satisfaction of athletes in the field of physical culture and sports services [5]. In adaptive sports, such studies are relevant, since when organizing and holding sports events, it is necessary to take into account the peculiarities of the nosology of participants, the availability of technical means of rehabilitation (RTM), the accessible environment, etc. [2].

In the theory and methodology of adaptive sports, there are studies devoted to the analysis of the degree of satisfaction of persons with disabilities with the process of holding various competitions [3-5, 7]. Currently, new types of adaptive physical culture and sports are emerging that need a comprehensive analysis, including in the field of sports management and marketing.

One of the new directions in adaptive physical culture is kibatlon and kibatletics [1]. For the first

time, the idea of holding such competitions was implemented in 2016 by Robert Reiner, a professor at the Swiss Higher Technical School in Zurich; the competitions were called cybathlon [8]. In Russia, this direction was called kibatletika, which has been implemented by the non-profit organization "Union of Developers and Suppliers of Technical Means of Rehabilitation "Kibatletika" (Union "Kibatletika") since 2016 [6].

The purpose of these competitions is that participants with disabilities and using technical means of rehabilitation (TMR) overcome specially prepared tracks with recreated various motor situations that a person with a disability encounters daily in everyday life. For example, overcoming road obstacles, barriers and steps for people with prosthetic legs or moving in an electric wheelchair; setting the table, screwing in an electric lamp and other manipulations with prosthetic hands. The task of the participants



(or kibatlets) is to accurately pass all the elements of the route in the minimum time. For each correctly performed element of the competitive course, the kibatlet is awarded points, the sum of which is taken into account in the final protocol. With the same amount of points, a higher place is awarded to the kibatlet, which spent less time on the route [1].

Objective of the study was to analyze the degree of satisfaction of athletes with lesions of the musculoskeletal system with the organization of competitions in cybatletics.

Methods and structure of the study. In order to analyze the degree of satisfaction of athletes with lesions of the musculoskeletal system with the organization of competitions, a survey was conducted as part of open competitions in cybatletics, which took place from March to May 2021 on the basis of the Russian State Social University. The organizers of the competition were the "Kibatletika" Union and the Faculty of Physical Education of the Russian State Social University [6]. The competition participants were surveyed using an online service for creating feedback forms, online testing "Google Forms". Answers to questions were evaluated on a 10-point scale depending on the degree of significance: 1-2 points - absolutely dissatisfied (by), 3-4 points - dissatisfied (by), 5-6 points - partially satisfied (by), 7-8 points - satisfied (at), 9-10 points - completely satisfied (at).

The survey involved 80 people (58 men and 22 women) from Moscow and St. Petersburg, Vladimir, Arkhangelsk, Belgorod, Kaliningrad, Kemerovo, Kirov, Leningrad, Nizhny Novgorod, Novgorod, Novosibirsk, Penza, Pskov, Rostov, Samara, Sverdlovsk, Smolensk, Tomsk, Yaroslavl regions, Republics of Bashkortostan and Tatarstan, Udmurt Republic, Krasnoyarsk and Krasnodar territories.

Results of the study and their discussion. An analysis of the general data of the survey participants revealed the following ratio by disability groups: with

the 3rd disability group - 60%; with the 2nd disability group - 16.25% and with the 1st disability group - 23.75%. By belonging to the disciplines of cybatletics, the participants were represented approximately equally: prosthetic hands - 27.5%; hip prostheses - 28.75%; lower leg prostheses - 22.5%; electrified wheelchairs - 21.25%. The main results of the survey are presented in the table.

80% of kibatlets were completely satisfied with the overall level of organization and conduct of the competition, 16.25% were satisfied and only 3.75% noted that they were partially satisfied. The answers of the participants show that the organizers have made every effort to make the competition comfortable and have tried to take into account all possible nuances. Estimates of 1-2 points - absolutely dissatisfied (at) and 3-4 points - not satisfied (at) in this issue were absent.

Cybatletics competitions were held from March to May, which made it possible for athletes to choose convenient dates for participation. 92.5% of the respondents were completely satisfied with this option of holding the competition, 2.5% were satisfied and 5% of the athletes were partially satisfied.

Participation in the competition consisted of two parts. In the first part, the participants were given time to get acquainted with motor tasks on the track (at least 90 minutes). During this time, the volunteers conducted warm-up classes in adaptive physical culture, the judges gave safety instructions, the general passage of the track and its individual elements. As soon as they were ready, the kibatlets were invited by the judges to the starting line and completed the competitive passage of the track. The results of motor tasks (elements) fulfillment and the time of overcoming the route were recorded in the final protocol of the competition. All passages of the route were recorded on video, mounted in separate videos, where the passages of athletes were combined in accordance with the rating of a certain

Results (%) of the survey of participants on cybatletics (n=80)

Questions	Points				
	10-9	8-7	6-5	4-3	2-1
General level of competition organization	80	16,25	3,75	-	-
Competition schedule	92,5	2,5	5	-	-
Favorable atmosphere during training and competitions	96,25	3,75	-	-	-
Catering	95	2,5	2,5	-	-
The quality of the work of judges	97,5	2,5	-	-	-
The quality of volunteer work	92,5	7,5	-	-	-



federal district. All videos were made available to the athletes on the YouTube platform on the day the results were announced.

A favorable atmosphere during the training process and competitions is one of the important factors for the successful organization of events, which was confirmed by the results of a survey of participants. 96.25% of the respondents were completely satisfied, 3.75% of the athletes were satisfied, which indicates a favorable and comfortable psychological atmosphere during the competition. The data obtained during the survey proves the importance of preliminary seminars and conversations with the judging team and volunteers on the topic of ethics in the professional activities of specialists in adaptive physical culture, which were held before the competition.

During the competition, hot meals were organized for the kibatlets. This fact turned out to be very significant for the participants, which is confirmed by the results of the survey: for 95% of the participants, this moment in the competition caused complete satisfaction, and 2.5% were satisfied or partially satisfied.

The training of the referee team in the organization of sports events is the foundation for the effective conduct of competitions. The problematic issue is the interpretation of the rules for cybatletics in terms of passing a sports track, where there are many variations in the performance of individual elements of the task. The judging panel included teachers and senior students of the Faculty of Physical Education of the Russian State Social University. To train the referee team, two seminars were held, where the conditions for passing the route were considered in detail, taking into account nosology, trauma and the use of TMR.

During the training stage, before passing the track for the result, the refereeing team carried out consultations on each task of the track with a detailed analysis of the most common mistakes that were identified at the past competitions. All athletes received the same information, thanks to which they could independently draw up a scheme for passing the route through the elements, based on their own individual capabilities. During the passage of the route, especially in the category of electric wheelchairs, lower leg prostheses and hip prostheses, the referee team and volunteers carried out belaying the kibatlets on those elements of the route that could cause a risk of injury. Thanks to these actions of the judges, the risk of injury was reduced, and no

injuries were recorded during the competition.

Analysis of the quality of work of the referee team by the participants of the competition revealed that: 97.5% of athletes are completely satisfied and 2.5% are satisfied. There were no ratings for 1-6 points in this question. An analysis of the answers to this question showed that the systematic training of judges and volunteers in terms of the ethics of behavior and a detailed analysis of the rules in kibatletics made it possible to conduct high-quality competitions.

The participants assessed the activity of volunteers in the process of holding a sporting event as follows: 92.5% are completely satisfied and 7.5% are satisfied with the work of volunteers.

The question "Participation in cybatletics gave me the opportunity to gain new knowledge and experience in using technical means of rehabilitation" was asked to answer with simple statements, where 82.5% of respondents answered in the affirmative, 2.5% answered "no" and 15% found it difficult to answer.

78 people (97.5%) expressed their desire to take part in kibatletics competitions again, and only two (2.5%) athletes answered negatively.

Expanding the possibilities of performing social and household operations is the main task of using TMR in everyday life by people with lesions of the musculoskeletal system (LMS). Through participation in cybatletics competitions, 75% of participants expanded their ability to use TMR in everyday life. 10% of athletes answered negatively to this question and 15% of respondents found this question difficult.

Conclusions. Analysis of the satisfaction of athletes with lesions of the musculoskeletal system with the organization and holding of competitions in kibatletics showed that the competitions were organized and held at a high level, the vast majority of respondents were completely satisfied with the competitions.

Additional surveys of respondents made it possible to identify shortcomings in the organization and conduct of competitions, they concerned the accessible environment and the need to consider the differentiation of disciplines by class of athletes (for example, an athlete with a prosthesis of one hand competes on an equal basis with an athlete who has prostheses of both hands). The use of medical and sports-functional classification (on the example of the Paralympic movement) will ensure fair competition between disabled athletes in kibatletics [2].



However, this issue also lies in the international plane, where these distinctions are not provided for in the official rules of the Cybathlon World Championship.

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