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MOTIVATION AND HARDINESS IN PARALYMPIC SPORT

Paralympic sport provides an opportunity for people with disabilities to achieve significant heights of functional capabilities, thereby increasing their ability to personal development and integration into society. The issues of inclusion related to the organization of preparation for competitions from the point of view of studying the psychological characteristics of Paralympians are one of the central problems of modern society. The aim of the study was to study the characteristics of sports motivation and hardiness of Paralympians.

The study involved 60 Paralympic athletes, and 3 methods were used: E.A. Kalinin's MSA, Trotnikov's methodology for the motives of sports activity, and the test of resilience in the adaptation of Leontiev, Rasskazova. The peculiarities of sports motivation and hardiness of Paralympians were revealed depending on sex and level of sports qualifications. It is shown that hardiness and control are the key constructs of the motivational system of Paralympians. The conducted research is of particular value for the further development of Kazakhstani sports psychology, which in recent years has begun to pay great attention to Paralympians, studying the characteristics of their sports motivation and hardiness.

Key words: paralympic sports, sports motivation, motivational profile, hardiness.

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Паралимпиадалық спорттағы мотивация және өмірге төзімділік

Паралимпиадалық спорт мүмкіндігі шектеулі адамдарға функционалдық мүмкіндіктердің маңызды деңгейіне қол жеткізуге мүмкіндік береді, осылайша олардың жеке дамуы мен қоғамға интеграциялану қабілетін арттырады. Зерттеудің мақсаты паралимпиадалық спортшылардың спорттық мотивациясының және өмірге төзімділік ерекшеліктерін зерттеу болды.

Зерттеуге 60 паралимпиадалық спортшы қатысып, 3 әдістеме қолданылды: Е.А. Калинин СБМ, В.И. Тропниковтың спорттық іс-әрекет мотивтерін зерттеу әдістері, Д.А. Леонтьев пен Е.И. Расказованың бейімдеуіндегі төзімділік тесті. Жынысы мен спорттық біліктілік деңгейіне байланысты паралимпиадашылардың спорттық ынтасы мен өмірге төзімділік ерекшеліктері анықталды. Төзімділік пен бақылау паралимпиада спортшыларының мотивациялық жүйесінің негізгі құрылымдары екені көрсетілген. Жүргізілген зерттеулер соңғы жылдары паралимпиадашыларға көп көңіл бөле бастаған қазақстандық спорт психологиясын одан әрі дамыту үшін, олардың спорттық ынтасы мен өмірге төзімділігінің ерекшеліктерін зерттеу үшін ерекше құнды болып табылады.

Түйін сөздер: паралимпиадалық спорт, спорттық мотивация, мотивациялық профиль, өмірге төзімділік.

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Мотивация и жизнестойкость в паралимпийском спорте

Паралимпийский спорт дает возможность людям с ограниченными возможностями здоровья достигать существенных высот функциональных возможностей, повышая тем самым, их способность к личностному развитию и интеграции в общество. Целью данного исследования явилось изучение особенностей спортивной мотивации и жизнестойкости спортсменов-паралимпийцев.

В исследовании участвовало 60 спортсменов паралимпийского спорта, было использовано 3 методики: МСД Е.А. Калинина, методика изучения мотивов спортивной деятельности В.И. Тропникова, тест жизнестойкости в адаптации Д.А. Леонтьева и Е.И. Рассказовой. В ходе проведения исследования были выявлены особенности спортивной мотивации и жизнестойкости паралимпийцев в зависимости от пола и уровня спортивной квалификации. Результаты исследования также показали, что жизнестойкость и контроль выступают ключевыми конструктами мотивационной системы паралимпийцев.

Проведенное исследование имеет особую ценность для дальнейшего развития казахстанской спортивной психологии в целом, которая в последние годы стала уделять большое внимание подготовке паралимпийцев, изучению особенностей их спортивной мотивации и жизнестойкости.

Ключевые слова: паралимпийский спорт, спортивная мотивация, мотивационный профиль, жизнестойкость.

Introduction

Paralympic sport is an important part of international sport competitions. The inclusion of people with disabilities in sport activities has enormous implications for people with disabilities and society as a whole. Paralympic sport provides an opportunity for people with disabilities to achieve substantial functional performance and has become an elite sport in many ways due to the increased intensity of training, athletic performance and improved training methods. Paralympians constantly have to deal with various challenges, including abuse in sport, risky behaviour, functional limitations, psychological stressors, normalized pain, health risks and inequality (Fagher, 2019: 24).

In recent years, the number of sports included in the Paralympic Games has increased, priorities have changed in the system of athletic training for people with disabilities, the number of participants in the Paralympic trials is regulated by using handicap classification mechanisms for Paralympic athletes, the requirements for limiting the functional capabilities of athletes in various disciplines of Paralympic sports have been reduced, etc. (Abalyan, 2016:37). Another reason for the growth is that the involvement of people with disabilities in Paralympic sports significantly increases their ability for personal development (Bardiovský et al., 2013:104) and self-realization, reduces negative emotional states (Kokun, 2021:436; Dieffenbach, 2012:110).

Banack (2011) points out that athletes with disabilities are characterized by high intrinsic motivation, among which there are such motives for engaging in sports activities as: developing a positive attitude towards life, strengthening identity, improving health, as well as sports skills, competence and competitiveness (Huang, 2006:373), possibility of self-realization, pleasure, physical development, reward and support, stress relief (Omar-Fauzee,

2010:269), also the most important motives were related to social problems and overcoming them (Torralba, 2017:58). The study by Debbie Van Biesen and Sofie Morbee identified only three motivational types in a group of Paralympic athletes. In the first profile, all types of motivation were present, but amotivation was dominant, in the second profile, the autonomous type of motivation was the most prominent, although to a small extent, and in the third profile, the controlled type of motivation was dominant (Van, 2023).

However, Cardoso et al. (2018) emphasizes the need for assistance to Paralympians in managing sports motivation and developing the necessary mental skills. Success and high sporting performance depend on the Paralympic athlete himself: the ability to independently assess his own capabilities and resources, plan his own activities, his ability to self-control during competitions and wisely distribute his strength and time (Shuba, 2017:143). The system of modern training of Paralympic athletes is determined by the requirements for maintaining a high level of competitiveness and performance.

There is limited research on the motivational characteristics of Paralympic athletes, with some studies being conducted within the framework of self-derivation theory (Jefferies et al., 2012:280; Banack et al., 2011:729). Research suggests that autonomy in Paralympic athletes can be explained by psychological qualities such as hardiness (McLoughlin et al., 2017:422). According to the concept by Fletcher and Sarkar (2012), hardiness is an important component in the life of a person with a disability and corresponds to protection from the potential negative impact of stressors that arise from the behavioral and mental processes of athletes. Higher hardiness in athletes allows them to maintain good motivation and psychological functioning to achieve their goals (Sarkar, 2017:3; Nascimento, 2020:3).

Machida et al. found that social support from family members, teammates, and coaches was fundamental to the development of hardiness and motivation in Paralympic athletes. Hardiness and motivation are important components in sport, as athletes must use and optimize a range of mental abilities to cope with the pressures they experience (Machida et al., 2013:1061). Hardiness is a factor that influences both controlled and autonomous sports motivation (Nascimento et al., 2020:7).

The study of the relationship between sports motivation and hardiness in Paralympic athletes is of great relevance, mainly because these phenomena are significant for this specific group of athletes.

Literature review

Based on the above, it is necessary to conduct a detailed study of the motivational determinants and components of resilience. In this regard, we are investigating the structure of sports motivation, resilience, involvement in sports activities, readiness for risk.

Within the scope of our research, our aim is to correlate different approaches of motivation and self-determination of athletes. STD in its main points (Ryan et al., 2021), closely resembles Leontiev's model of personal potential (Leontiev, 2023), which includes three substructures: the potential for self-determination (choice of need), the potential for achievement (motivation), and the potential for persistence (hardiness). Their collaborative work serves as a tool, an instrument of personality, if it wants to act based on its own motivation rather than under the influence of internal impulses and external pressure. However, in our view, Leontiev's (2023) approach does not overcome the opposition between external and internal motivation, and the predominance of external motivation is understood as the influence of "alien" motivation. Whereas in the approach of E. Deci and R. Ryan, this opposition is overcome, and motivation is considered as a continuum, where the contribution of external motivation can positively influence sports achievements (Ryani, 2020).

Building on the work of Gordashnikov and Osin (2009) and the self-determination theory of Standage and Ryan (2020), we have divided the studied motives and needs into two groups: internal motives and external motives. Internal motivation includes motives such as the achievement motive, struggle motive, self-improvement motive, knowledge motive, character and mental qualities development motive, physical perfection motive, aesthetic pleasure and thrill-seeking motive, motivation for well-

being and health improvement, and the motive for acquiring useful life skills and knowledge. External motivation includes motives such as the need for approval, enhancement of prestige, desire for fame, as well as a collectivist orientation and the motive for social interaction.

Hardiness is viewed by us, on the one hand, as motivation for coping (Nikitina, 2017) with emerging sports difficulties, and on the other hand, as a psychological mediator (Kudinov et al., 2017; Sulistianta et al., 2022), a resource for self-regulation (Loginova et al., 2016) ensuring the preservation of the athlete's potential for self-realization in sports activities.

Materials and methods

Research bases were the Sports club for people with disabilities "Mergen" and the Federation of Paralympic Sports of Kokchetav, Shymkent, Taraz. The study involved 60 Paralympic athletes (athletes with diagnoses of pituitary dwarfism, slirdomutism, the absence of lower extremities and paralysis of the lower extremities): 33 men and 27 women. The average number of years in sports was 9.2 years for men and 8.9 years for women.

Psychodiagnostic measurements were conducted using four selected diagnostic methods: Maddi's Hardiness Test (adaptation by Leontiev and Rasskazova), questionnaire "Motives of Sports Activities" (MSA Kalinin) and Tropnikov's Methodology for Studying Motives of Sports Activities. When developing the scale for assessing the level of motives, the author relied on the Yerkes-Dodson law, which suggests that the best results are achieved at moderate motivation intensity.

Statistical data processing was carried out using the SPSS program, version 26.0: comparative analysis (Mann-Whitney U-criterion, Kruskal-Wallis H-criterion) and correlation analysis (Spearman's criterion).

Results and discussion

We conducted a comparative analysis of the motivational characteristics of athletes in the three study groups. Descriptive statistics according to the MSA method of E.A. Kalinin are presented in Table 1.

The first place among Paralympic athletes is taken by the motive of self-improvement ($M=31.1$), the level of motivation is optimal, the obtained result coincides with the results of the survey presented above; the second place among Paralympic athletes

is occupied by the motive of achievement ($M=30.9$), the level of motivation is optimal; the third place among Paralympic athletes is occupied by the motive of struggle ($M=27.6$), the level of motivation is low; and the fourth place is taken by the motive of encouragement ($M=26.4$), the level of motivation is low; the last place among Paralympic athletes is oc-

cupied by the motive of communication ($M=23.9$), the level of motivation is low.

Using the Mann-Whitney U-test, sex differences in the expression of individual motives according to the MSD questionnaire were identified in the group of Paralympic athletes; the data obtained are presented in Figure 1.

Table 1 – Descriptive statistics of individual motives in Paralympians using the MSA method

	Range	Minimum	Maximum	Mean	Std. Deviation
achievement	30.0	10.0	40.0	30.89	7.17
struggle	30.0	10.0	40.0	27.60	7.02
self-improvement	30.0	10.0	40.0	31.11	7.25
communication	27.0	9.0	36.0	23.91	6.93
encouragement	30.0	10.0	40.0	26.41	8.14

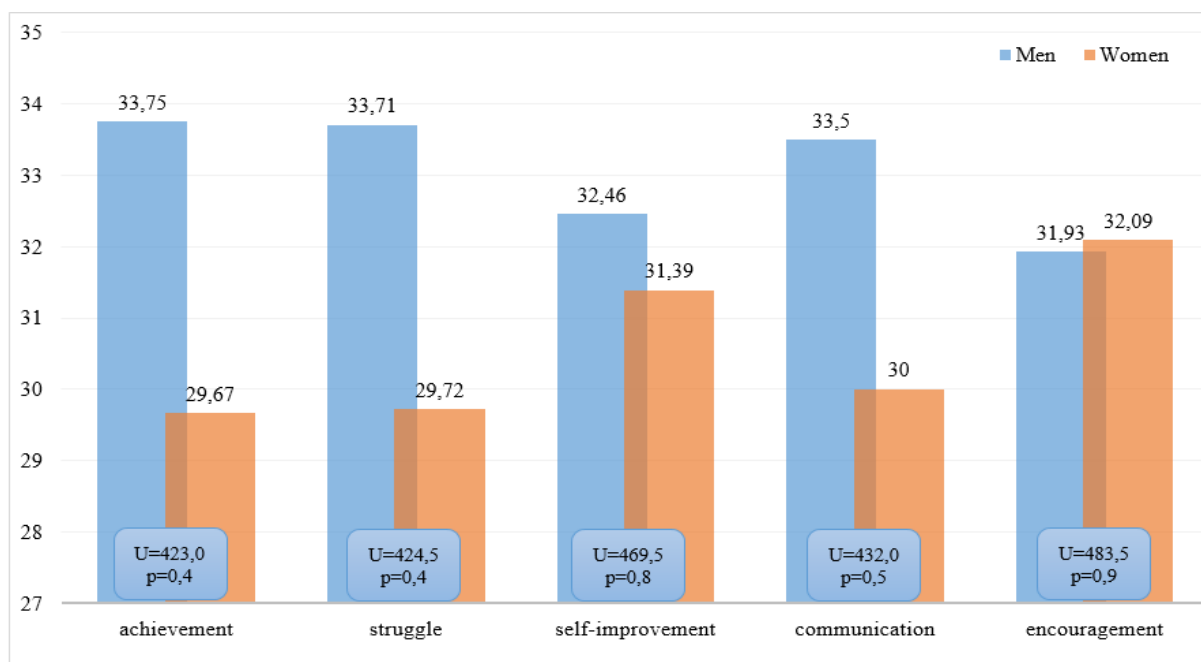


Figure 1 – Sex differences in the expression of individual motives in Paralympians using the MSA method

The data presented in Figure 1 show that in the group of Paralympians, the expression of individual motives for achievement, self-improvement, struggle, communication and encouragement is the same for both men and women. Both male and female Paralympians are equally focused on achieving high performance in sports, try to maximize their capabilities, enjoy training, strive to develop their will-power and the ability to overcome challenges on the way to success.

Then a comparison was made in the expression of motives depending on the level of sports qualification of Paralympians. The obtained data are presented in Table 2.

The significant differences were revealed in the expression of sports motives in the group of Paralympians depending on the level of sports qualification for encouragement, this motive is more tangibly developed in the subgroup of MS. Table 3 presents descriptive statistics using the Tropnikov's methodology.

Table 2 – Differences in the expression of individual motives in Paralympians using the MSA method, depending on the level of sports qualifications

Variables	Kruskal-Wallis H-criterion and significance level	Qualification	Ranks
achievement	H=0,477 p=0,788	MS	33,34
		CMS	29,31
		N	32,69
struggle	H =0, 391 p=0,822	MS	33,53
		CMS	29,66
		N	32,42
self-improvement	H =0,235 p=0,889	MS	32,94
		CMS	33,25
		N	30,87
communication	H =2,717 p=0,257	MS	38,34
		CMS	31,22
		N	29,13
encouragement	H =5,905 p=0,050	MS	43,91
		CMS	26,38
		N	27,27

Table 3 – Descriptive statistics of individual motives in athletes according to Tropnikov's methodology

	Range	Minimum	Maximum	Mean	Std. Deviation
communication	32.0	8.0	40.0	23.95	7.94
knowledge	16.0	4.0	20.0	14.06	4.49
material well-being	32.0	8.0	40.0	20.58	7.33
character and mental qualities development	28.0	12.0	40.0	32.33	8.27
physical improvement	36.0	14.0	50.0	39.50	8.84
well-being and health enhancement	32.0	8.0	40.0	23.47	7.41
aesthetic pleasures and thrill-seeking	33.0	12.0	45.0	34.00	8.63
acquisition of useful life skills and knowledge	22.0	8.0	30.0	18.57	5.76
need for approval	20.0	5.0	25.0	14.88	6.15
enhancement of prestige	40.0	10.0	50.0	33.66	9.55
collectivist orientation	28.0	7.0	35.0	23.14	8.97

The group of leading motives includes 4 motives (Krasnik, 2023a:81): physical improvement M=39.5; aesthetic pleasures and thrill-seeking M=34.0; enhancement of prestige M=33.7; developing character and mental qualities M=32.3. The group of main motives includes 4 motives: communication M=24.0; well-being and health enhancement M=23.5; collectivist orientation M=23.1; material well-being (M=20.6). The group of poorly developed motives consists of three motives: acquisition

of useful life skills and knowledge M=18.6; the need for approval M=14.9; the knowledge (M=14.1).

The resulting hierarchy of motives has some similarities with the motivation profile according to the Kalinin MSA method: in particular, we are talking about the dominant motives of self-improvement and achievement.

Using the Mann-Whitney U-test, sex differences in the expression of individual motives according to the V.I. Tropnikov questionnaire were identified in

the group of Paralympians; the data obtained are presented in Figure 2.

As follows from the data presented in Figure 2, significant sex differences in 3 motives for sports activity were identified (Krasmik, 2023a:83):

- Communication is more expressed in male Paralympians, they like joint training with friends, the opportunity to be part of a team, and have fun during joint training;

- Material well-being is more expressed in male Paralympians, they are more interested in the material component of sports activity, the opportunity to get housing benefits, and visit different countries of the world;

- Acquisition of useful life skills and knowledge is more expressed in male Paralympians, it is important for them to develop skills that are valued by other people and can be useful not only in sports activities, but also in other areas of life.

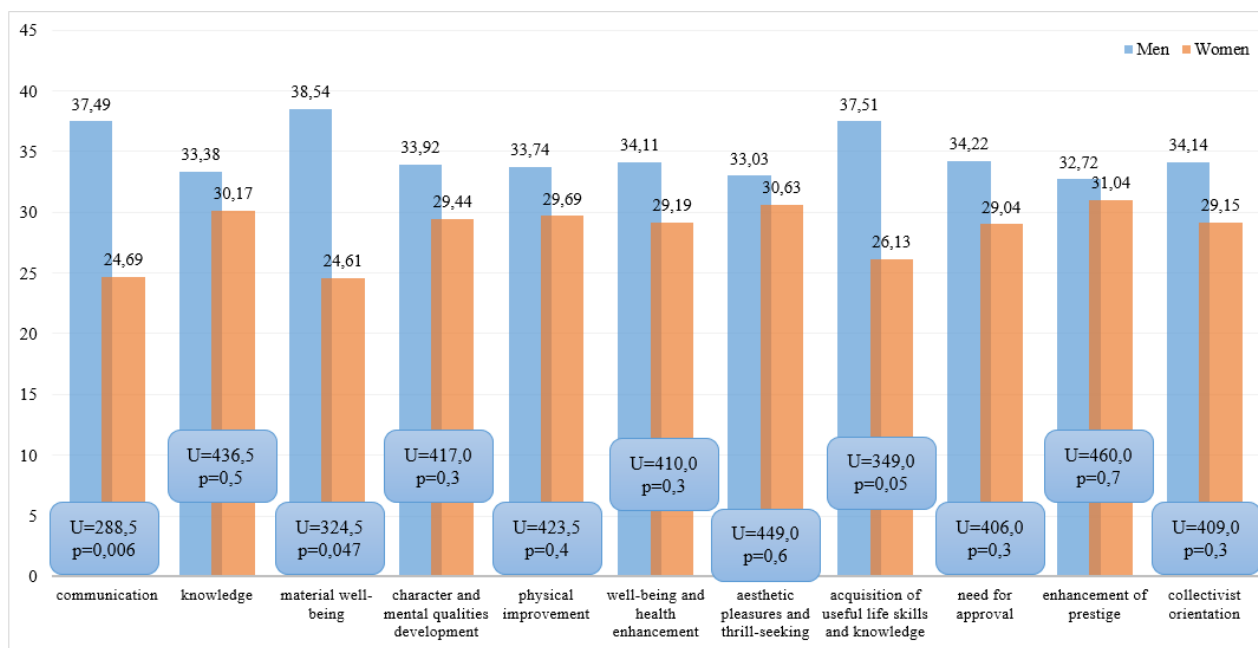


Figure 2 – Sex differences in the expression of individual motives in Paralympians according to V.I. Tropnikov’s methodology

Figure 3 presents the data on the expression of motives depending on the level of sports qualification of Paralympians.

According to the results presented in Figure 3, significant differences in the importance of sports motives depending on their level of sporting qualification. The need for approval is more significant in the MS subgroup; it is important for them that important people (coach, family, friends, fans) noted their results, supported them at competitions and were proud of their victories.

The hardiness among Paralympians is 71.3 points (see Table 4), which corresponds to the average level of coping with stressful situations and indicates a formed motivation for transformational coping during training, competitions, defeats and in cases of injury (Krasmik, 2023a:83).

The commitment level is 29.0 points and corresponds to a low value, which indicates that Paralympians do not find enough chances to realize themselves and their potential in sports; training, competitions, and sports activities do not always bring pleasure and satisfaction. This trend is typical for 54% of the sample, 39.8% have average commitment indicators, and only 6.2% of Paralympic athletes have high commitment indicators in sports activities.

The control indicator is 26.5 points, which corresponds to the average value. Paralympic athletes understand that good preparation for competitions and struggle allow them to impact the victory in competitions, but does not guarantee 100% victory. They have a strong feeling that they choose their path of professional self-realization in sports activities.

The challenge indicator is 15.8 points, which corresponds to the average level, which indicates that Paralympians understand that both victories

and defeats contribute to their development as professional athletes and they are willing to compete, taking on challenges to win performances.

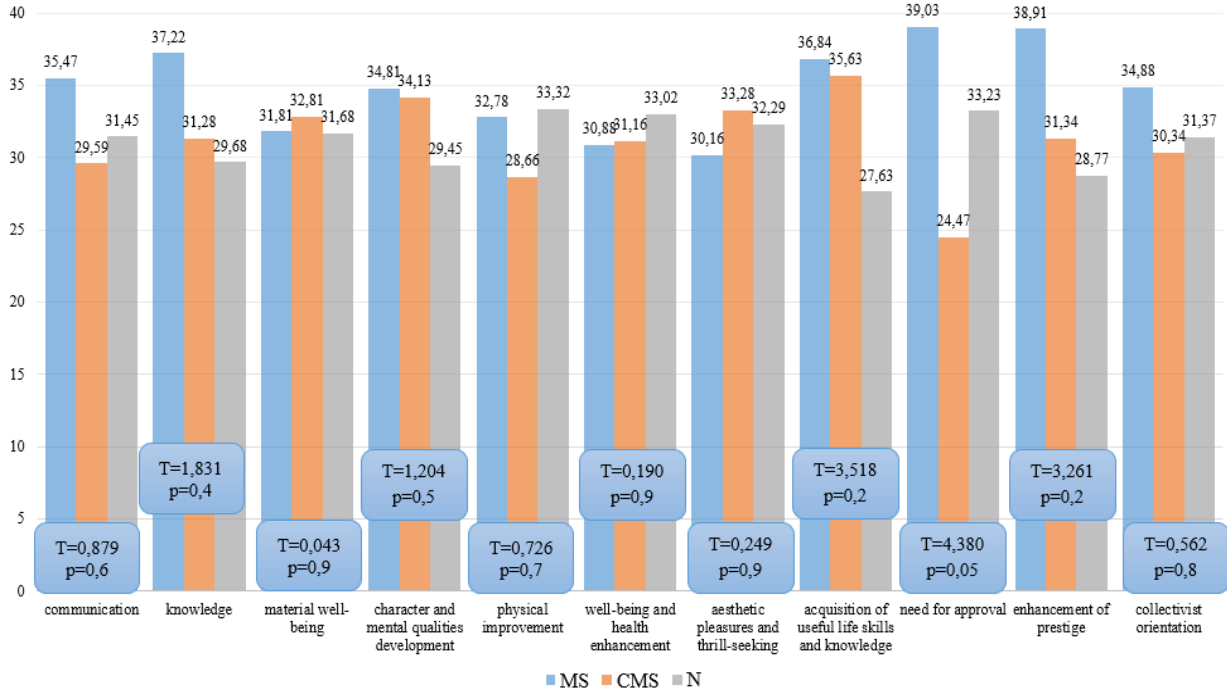


Figure 3 – Differences in the intensity of individual motives in athletes according to Tropnikov’s methodology depending on the level of athletic qualification

Table 4 – Descriptives statistics on hardiness

	Range	Minimum	Maximum	Mean	Std. Deviation
commitment	54.0	.0	54.0	29.04	9.61
control	48.0	.0	48.0	26.49	9.20
challenge	30.0	.0	30.0	15.81	6.25
overall hardiness level	132.0	.0	132.0	71.34	23.51

Using the Mann-Whitney U-test, sex differences in the expression of hardiness indicators in Paralympians were identified; the data obtained are presented in Figure 4.

From the data presented in Figure 3 it follows that the group of Paralympians is characterized by the same level of hardiness for both men and women.

Next, a comparison was made in the expression of hardiness indicators from the level of sports qualification in Paralympians (see Table 5).

The data presented in Table 5 show that in the group of Paralympians, their skill level does not influence the development of hardiness and its components (commitment, challenge, control).

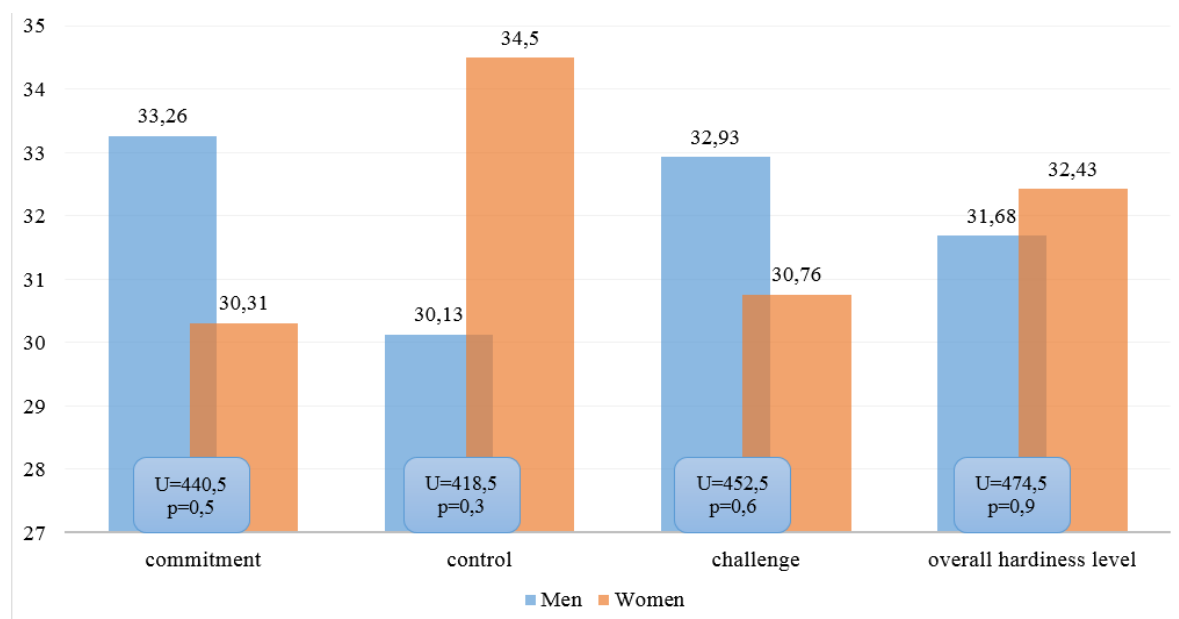


Figure 4 – Sex differences in the expression of indicators of hardiness in Paralympians

Table 5 – Differences in the expression of hardiness indicators among Paralympians depending on the level of sports qualification

Variables	Kruskal-Wallis H-criterion and significance level	Qualification	Ranks
commitment	H=0,645 p=0,724	MS	34,53
		CMS	32,94
		N	30,21
control	H=0,423 p=0,809	MS	34,50
		CMS	31,72
		N	30,85
challenge	H=0,480 p=0,787	MS	32,75
		CMS	34,22
		N	30,47
overall hardiness level	H=0,308 p=0,857	MS	33,59
		CMS	32,88
		N	30,73

The further conducted correlation analysis of the interrelations of the studied motives and hardiness indicators in the group of Paralympic athletes allowed us to obtain the following results, presented in Table 6-7. For ease of data perception, only significant correlations are presented in the correlation tables.

The data presented in Table 7 show that the components of hardiness are positively correlated with the motives of sports activity:

- Commitment is associated with three positive correlations with the motives of sports activity: the

need for communication ($r=0.415^{**}$), the need for encouragement ($r=0.243^{*}$) and the need for self-improvement ($r=0.283^{*}$). Consequently, we can say that the motives of communication, encouragement, and self-improvement fill sports activity with the energy that gives athletes pleasure, captivates them during the period of preparation for competitions, allowing them to focus on practicing technique, daily efforts, and overcoming themselves.

- Control is associated with 5 positive correlations with the motives of sports activity: with the

need for achievement ($r=0.280^*$), the need for struggle ($r=0.292^*$), the need for self-improvement ($r=0.355^{**}$), the need for communication ($r=0.319^{**}$) and the need for encouragement ($r=0.295^{**}$).

- Challenge is associated with one positive correlation with the need for encouragement ($r=0.355^{**}$).

- The overall level of hardiness is associated with 4 positive correlations with the motives of sports activity: with the need for achievement ($r=0.288^*$), the need for self-improvement ($r=0.313^{**}$), the need for communication ($r=0.347^{**}$) and the need for encouragement ($r=0.334^{**}$).

Table 6 – Relationship between sporting motives (MSA) and indicators of hardiness

	commitment	control	challenge	overall hardiness level
achievement		0,280*		0,228*
struggle		0,292*		
self-improvement	0,283*	0,355**		0,313**
communication	0,415**	0,319**		0,347**
encouragement	0,243*	0,295**	0,355**	0,334**

Table 7 – The relationship between the studied motives according to the Tropnikov's methodology and the indicators of hardiness

	commitment	control	challenge	overall hardiness level
communication	0,247*	0,265*	0,295**	0,262*
material well-being	0,349**	0,435**	0,395**	0,424**
character and mental qualities development	0,311**	0,262*	0,214*	0,274*
physical improvement	0,230*	0,280*		0,226*
well-being and health enhancement	0,390**	0,355**	0,294**	0,354**
aesthetic pleasures and thrill-seeking		0,229*	0,328**	0,241*
acquisition of useful life skills and knowledge	0,271*		0,218*	0,228*
need for approval	0,366**	0,425**	0,264*	0,375**
enhancement of prestige	0,263*	0,245*		0,241*
collectivist orientation			0,262*	

According to the data provided by Table 8 it is evident that in the group of Paralympic athletes the components of hardiness are positively correlated with the motives of sports activity:

- Commitment is associated with 8 positive correlations with the motives of sports activity: the communication ($r=0.247^*$), the material well-being ($r=0.349^{**}$), the developing character and mental qualities ($r=0.311^{**}$), the physical improvement ($r=0.230^*$), the well-being and health enhancement ($r=0.390^{**}$), the acquisition of useful life skills and knowledge ($r=0.271^*$), the need for approval ($r=0.366^{**}$) and the enhancement of prestige ($r=0.263^*$).

- Control is associated with 8 positive correlations with motives for sports activities: communication ($r=0.265^*$), material well-being ($r=0.435^{**}$), de-

veloping character and mental qualities ($r=0.262^*$), motive for physical improvement ($r=0.280^*$), well-being and health enhancement ($r=0.355^{**}$), aesthetic pleasures and thrill-seeking ($r=0.229^*$), the need for approval ($r=0.425^{**}$) and enhancement of prestige, desire for fame ($r=0.245^*$).

- Challenge is associated with 8 positive correlations with motives for sports activities: communication ($r=0.295^{**}$), material well-being ($r=0.395^{**}$), developing character and mental qualities ($r=0.214^*$), well-being and health enhancement ($r=0.294^{**}$), aesthetic pleasures and thrill-seeking ($r=0.328^{**}$), the acquisition of useful life skills and knowledge ($r=0.218^*$), the need for approval ($r=0.264^*$) and collectivistic orientation ($r=0.262^*$).

- The overall level of hardiness is associated with 9 positive correlations with the motives of

sports activities: the communication ($r=0.262^*$), the material well-being ($r=0.424^{**}$), the developing character and mental qualities ($r=0.274^*$), the physical improvement ($r=0.226^*$), well-being and health enhancement ($r=0.354^{**}$), the aesthetic pleasures and thrill-seeking ($r=0.241^*$), the acquisition of useful life skills and knowledge ($r=0.228^*$), the need for approval ($r=0.375^{**}$) and the enhancement of prestige, desire for fame ($r=0.241^*$).

The results of the correlation analysis of the interrelations of sports motivation and hardiness in the group of Paralympic athletes show a large number of fairly close connections, where the leading role is given to control and the general level of hardiness. At the same time, the level of hardiness and its individual components in Paralympic athletes corresponds to a low level, which may indicate insufficient fulfillment of motives for sports activity. That is, they are actualized as “known” motives, but not as really effective ones, motivating the realization of potential in sports activity

Conclusion

The conducted research showed that the obtained profile of motivation of Paralympic athletes differs from the model of motivation of high-class athletes (Sopov, 2010:58), where the leading motive is an inflated motivation for achievement. Paralympic athletes have optimal motivation for two motives – self-improvement and achievement.

Both men and women in Paralympic sports are equally strongly focused on achieving success in sport, want to make the best use of their abilities, enjoy training, and strive to develop the will and ability to overcome difficulties on the way to achieving the highest performance. However, male Paralympians prefer to train together, develop skills that are valued by others and are focused on the material benefits that sports activities can provide.

The formation of motives in Paralympic athletes is associated with the growth of sports qualifications: the higher their qualifications, the more developed is the orientation towards encouragement and approval. Shamich (2020) showed in his dissertation research that material incentives (salary, uniform, bonuses, etc.) are significant subjective incentives for sports in the group of Paralympic athletes with the highest level of results, which is consistent with our findings.

For Paralympic athletes, a high significance of a collective orientation and their inclination towards social interaction is evident. Research conducted on athletes with visual impairments has shown that

achieving social identity and regulating social relationships play a crucial role in sport motivation (Seyedi et al., 2022:28). Thus, involving persons with limited abilities in sports significantly enhances their capacity for personal development and integration into society (Dehghansai et al., 2020: 502981). A study by Van Biesen and Morbee (2023) identified only three motivational types in the group of Paralympic athletes. In the first profile, all types of motivation were present, but amotivation dominated. In the second profile, the autonomous type of motivation was most pronounced, albeit to a minor extent. In the third profile, the controlled type of motivation was dominant (Van Biesen & Morbee, 2023: 1099399).

Some researchers (da Silva et al., 2022: 53534; Penetrante, 2023:31), following Cardoso (2018), indicate the need for support for Paralympic athletes to develop motivation and develop the necessary mental and social skills.

The level of hardiness of Paralympic athletes remains consistently low regardless of the improvement of sports skills, the achievement of new levels of sports qualifications, which can reduce the motivation of sports activity of the athlete. Data from a study by Rogaleva et al. (2023) show the opposite result, which the overall level of hardiness significantly differs depending on the level of qualification of athletes.

The results of the correlation analysis in the group of Paralympic athletes show a large number of positive relationships between sports motivation and hardiness in the group of Paralympic athletes. Two components of hardiness – control and the general level of hardiness have the greatest influence on maintaining motivation, since they are interconnected with almost all motives. Among the motives that are most interconnected with the components of hardiness, we can highlight the need for encouragement, the need for approval, the communication, material well-being, development of character and mental qualities, and the well-being and health enhancement. Research by Nascimento et al. (2020) also showed a high association between hardiness and intrinsic motivation in Paralympic athletes.

The identified features and relationships will allow adjusting the program for training Paralympic athletes for competitions, defining the main points for the work of a sports psychologist. It should be noted that in Kazakhstan, the Paralympic Federations often do not have a sports psychologist on a permanent basis, this work is carried out only from time to time and the entire psychological burden falls

on the coaches. This situation occurs because when sports psychologists in Kazakhstan are trained, the specifics of Paralympic sports is not taken into account, such as presence of psychological trauma,

stigmatization in society (which a sports psychologist or coach cannot always avoid) and lack of support (there are fewer publications about Paralympic sports and less coverage in the media).

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