

Article Classification:
Original article

CHARACTERISTICS OF MOTIVATION AND ITS RELATIONSHIP TO RESILIENCE IN KAZAKHSTANI PARALYMPIC ATHLETES

Yuliya Krasnik¹, Tatiana Iancheva², Bolat Rakhmalin³

¹ Kazakh National University “Al-Farabi”, Almaty, Kazakhstan

² National Sports Academy “Vassil Levski”, Sofia, Bulgaria

³ Kazakh Academy of Sport and Tourism, Almaty, Kazakhstan

OPEN ACCESS

ORCID

Yuliya Krasnik
<https://orcid.org/0000-0001-9376-893X>
Tatiana Iancheva
<https://orcid.org/0000-0001-9718-6056>
Bolat Rakhmalin
<https://orcid.org/0009-0004-6453-1297>

Cite this article as:

Krasnik, Y., Iancheva, T., Rakhmalin, B. (2024). Characteristics of motivation and its relationship to resilience in Kazakhstani paralympic athletes. *Journal of Applied Sports Sciences*, Vol. 2, pp. 78 - 90. DOI: 10.37393/JASS.2024.02.8



This work is licensed under a Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0)

ABSTRACT

Paralympic sport enables people with disabilities to significantly develop their functional abilities, improving their opportunities for full personal development and social integration. One of the main challenges for athletes is maintaining their internal motivation for sport and withstanding the stress and difficulties throughout the preparation and competition period. The relationship between resilience and motivation in the context of Paralympic sports is paramount for this group of athletes.

The aim of this study was to examine the characteristics of motivation and its relationship with resilience in Paralympic athletes. The study was conducted on the grounds of the Federation of Paralympic Sports of Kokchetav, Shymkent, Taraz. Sixty Paralympic athletes participated in the study. The methodology of the study included: 1) Methodology to study the motives for sports activity of V. I. I. 2) Motives for Sports Activity (MSA) questionnaire by E. I. Tropnikov. A. E. Kalinin's Motives for Motivation Test; S. Maddy, adaptation of D. A. Leontiev and E. I. Raskazova.

The results revealed the motivation and resilience of Paralympic athletes, depending on gender and level of sports qualification. It was found that control and the integral indicator of resilience act as key constructs within the motivational system of Paralympic athletes.

Keywords: Paralympic sport, sports motivation, motivational profile, resilience

INTRODUCTION

Paralympic sport is an essential part of international sports competitions. The inclusion of people with disabilities in sports activities is important both for them and for the society. Paralympic sport enables people with disabilities to develop their functional abilities. It has become an elite sport in many respects due to the increased frequency of training sessions, achievements, and improved training methods. Paralympic athletes constantly face the challenges of sports abuse, risky behavior, functional restrictions, psychological stress factors, normalized pain, health hazards, and unequal conditions (Fagher et al., 2016).

In recent years, the number of sports included in the Paralympic games has increased, and there has been a change in the priorities (from rehabilitation to competitive) in the system of physical activities for people with disabilities. The number of participants in the Paralympic Games is regulated through mechanisms for classifying the disabilities of the Paralympic athletes. The requirements for restricting athletes' functional abilities in the different disciplines of the Paralympic sports have been reduced (they encompass a more significant number of nosological groups), and so on (Abalian, 2016). Another reason for the increase is that including people with disabilities in Paralympic sports

significantly increases their abilities for adequate personal development and fulfilling social integration (Bardiovský et al., 2013; Daďova, 2007).

Sports help people with disabilities socialize. They facilitate their physical and psychic adaptation to life, support their self-realization and personal development, and reduce their negative psychological and emotional states (Diefenbach & Statler, 2012; Martin et al., 2011). Some researchers point out that Paralympic athletes are usually characterized by high intrinsic motivation (Banack et al., 2011). Huang and Brittain (2006) determined the following leading motives for participation in sports activities, specifically for people with disabilities: development of a positive attitude to life, stabilization of identity, improvement of health and sports skills, competence, and competitiveness. Omar-Fauzee et al. (2010) added the following motives: an opportunity for self-realization, physical development, pleasure, reward, and support, as well as reduction of stress. Torralba et al. (2017) pointed out that the most important motives for engagement in sports were related to social problems and their overcoming. The research by Debbie Van Biesen and Sofie Morbee identified only three types of motivation in a group of Paralympic athletes. The first profile included all kinds of motivation, but demotivation was predominant. The autonomous type of motivation was the most emphasized in the second profile, even if not very strongly. The controlled type of motivation was predominant in the third profile (Van Biesen & Morbee, 2023).

Some researchers emphasize the need for purposeful aid for Paralympic athletes to manage their motivation and develop the necessary psycho-social skills (Cardoso et al., 2018; Swanson et al., 2008).

The psychological and pedagogical aspects of Paralympic training at all stages require special attention. Success depends greatly on the

Paralympic athletes' ability to self-control in competition, assess their abilities and resources, plan their activities, and reasonably distribute their strengths and time (Shuba, 2017). The contemporary training system of Paralympic athletes is determined by the requirements for maintaining a high level of competitiveness and efficiency. Athletes' level of preparation should provide their noteworthy performance in international competitions – Asian and World Championships, World and Paralympic Games. One of the main tasks of the athletes is to maintain their intrinsic motivation for sport so they can resist stress and hardships throughout the training and competitive season.

The surveys on Paralympic athletes' motivation are scarce, and many were conducted based on the theory of self-determination (Jefferies et al., 2012; Banack et al., 2011). The results reveal that Paralympic athletes' autonomy can be explained by psychological traits such as resilience (McLoughlin et al., 2017). Resilience is an essential component in the life of a person with disability since the disability is directly related to negative emotions and psychic competition in unfavorable situations. According to Fletcher and Sarkar's concept of sport (Fletcher & Sarkar, 2012), resilience corresponds to the resources and protection against the potential negative impact of stress factors arising from psychic and behavioral processes in athletes. Athletes with higher resilience can maintain good psychological functioning and motivation to perform their tasks (Sarkar, 2017).

Machida et al. found that social support from family members, teammates, and coaches was of primary importance for developing resilience and motivation among Paralympic athletes. Resilience and motivation are important components in sports because athletes should use and optimize various psychic abilities to cope with pressure (Machida et al., 2013). Resilience is a factor influencing both the autono-

mous (intrinsic and identified motivation) and the controlled (introject and extrinsic) motivation (Nascimento et al., 2020).

The relationship between resilience and motivation in the context of Paralympic sports is vital, mainly because these constructs are essential for this group of athletes. Still, few surveys have examined the characteristics and relationships between residence and motivation in the context of Paralympic sport.

This research aimed to reveal the peculiarities of motivation and its relationship to resilience among Paralympic athletes.

METHODOLOGY

The research was carried out on the premises of the Federation for Paralympic Sports facilities in Kokchetav, Shimkent, Taraz. All the participants were informed about the research’s purposes and provided their informed consent.

The research was done among 60 Paralympic athletes – 33 men and 27 women. The men’s mean age was 25.0 years, and the women’s mean age was 23.8 years. The men’s average sports experience was 9.2 years, and the women’s average was 8.9 years (Table 1).

Table 1. *Criteria for dividing the initial sample into subgroups*

	Gender	Number	Age	Experience	Sports Qualification
Paralympic Athletes	Men	33	25.0	9.2	MS-7, CMS-12 D-14
	Women	27	23.8	8.9	MS-9, KMS-4 D-14
	Total	60	24.4	9.05	MS-16, KMS-16 D-28

Note: MS – masters of sports; CMS – candidate master of sports; D – discharge or absence of sports qualification

The research was done among athletes practicing five kinds of sports: table tennis, wrestling, football, athletics, and swimming.

To fulfill the aim of the research, we used complex methods, including:

1. Methods for researching motives for sports activities of V.I.Tropnikov, consisting of 109 questions and allowing to determine the degree of significance of 12 motives for sports activity – socialization, knowledge, material benefits, development of character and mental qualities, physical perfection, and health improvement.
2. Questionnaire “Motives for Sports Activity” (MSA) of E.A.Kalinin, consisting of 50 questions aimed at researching five motives – achievement, competition, self-improvement, socialization, and encouragement.

3. Resilience tense of S. Madi, adapted by Leontiev and Rasskazova, consisting of 45 questions and assessing four indicators: risk preparation, control, engagement, and general level of resilience.

The data were statistically processed with the SPSS program package, version 26.0. We used variation and comparative analysis (*H*-criterion of Kruskal-Wallis and *U*-criterion of Mann-Whitney).

RESULTS

The results from the survey revealed that Paralympic athletes related their main aim in sport to achievements, as well as the different aspects of their professional self-realization. Most of them (35%) stated that their main aim was self-realization, the opportunity to

become professionals, good coaches, or work in the field of sports management. This group emphasized self-development and personal growth. For 31% of the subjects, the main aim was victory in competitions – from winning the national championship to a world championship to participation or winning the Olympic Games. For 20% of the Paralympic athletes, the main aim was to keep fit, preserve their health,

and develop their physical qualities. Fourteen percent said their professional self-realization aimed to achieve specific qualifications - from receiving a positive evaluation to becoming MSIC (Master of Sports International Class).

The results from the descriptive statistics of Kalinin’s methods MSA revealed that the leading motive among Paralympic athletes was self-improvement— $M=31.1$ (Table 2).

Table 2. Results from the descriptive statistics of Kalinin’s methods MSA

Paralympic Athletes					
	Achievement	Competition	Self-improvement	Socialization	Encouragement
<i>M</i>	30.9	27.6	31.1	23.9	26.4

The Paralympic athletes ranked the motive of achievement second ($M=30.9$); the motivation level was optimal. This was followed by the need for competition ($M=27.6$); the motivation level along this indicator was low. The need for encouragement ($M=26,4$) was in fourth place. It also showed a low motivation level. The motive for socialization was last ($M=23,9$). It also showed a low motivation level.

The comparative analysis revealed that the motives for achievement, self-improvement, competition, socialization, and encouragement were the same for the men and women in the group of Paralympic athletes. Both male and female Paralympic athletes were equally strongly orientated towards achieving maximum results in sport, willing to develop their full abilities, enjoying the training sessions, and striving to develop their will and the ability to overcome the obstacles they faced on the way to their victory in competitions.

To determine the differences along the gender factor, we used comparative analysis—the Mann-Whitney *U*-criterion. The results are presented in Table 3.

Table 3. Results from the comparative analysis along the gender factor

Indicators	<i>U</i> -criterion of Mann Whitney and significance level	Gender	Rank
Achievement	$U = 423.000$ $p = .380$	men	33.75
		women	29.67
Competition	$U = 424.500$ $p = .392$	men	33.71
		women	29.72
Self-improvement	$U = 469.500$ $p = .818$	men	32.46
		women	31.39
Socialization	$U = 432.000$ $p = .452$	men	33.50
		women	30.00
Encouragement	$U = 483.500$ $p = .972$	men	31.93
		women	32.09

The results from the comparative analysis according to the level of sports qualification (Table 4) revealed significant differences regarding the motive for encouragement ($p=.05$). This motive was more strongly de-

veloped in the subgroup of masters of sports and international masters of sports than in the subgroup of candidate masters of sports and the subgroup with no sports qualification.

Table 4. Results from the comparative analysis according to qualification

Variables	Kruskal-Wallis H-criterion and significance level	Level of qualification	Rank
Achievement	H=0.477 $p=.788$	MS/	33.34
		CMS	29.31
		D	32.69
Competition	H=0.391 $p=.822$	MS	33.53
		CMS	29.66
		D	32.42
Self-improvement	H=0.235 $p=.889$	MS	32.94
		CMS	33.25
		D	30.87
Socialization	H=2.717 $p=.257$	MS	38.34
		CMS	31.22
		D	29.13
Encouragement	H=5.905 $p=.050$	MS	43.91
		CMS	26.38
		D	27.27

Note: MS – masters of sports; CMS – candidate masters of sports; D – discharge or absence of qualification

The results from the descriptive statistics of Tropnikova’s methods are presented in Table 5.

Table 5. Results from the descriptive statistics of Tropnikova’s methods

Paralympic Athletes											
	S	K	MB	DC	PP	H	AP	OKS	NA	PG	CD
M	24.0	14.1	20.6	32.3	39.5	23.5	34.0	18.6	14.9	33.7	23.1

Note: S – socialization; K – knowledge; MB – material benefits; DC – development of character and mental qualities; PP – physical perfection; H – improvement of health; AP – aesthetic pleasure; OKS – obtaining knowledge and skills; NA – need for approval; PG – prestige and glory; CO – collectivistic disposition.

The analysis of the results revealed that there was a group of leading motives, including the motives for physical perfection ($M=39.5$), aesthetic pleasure and excitement ($M=34.0$), increase of prestige, desire for glory ($M=33.7$), and development of character and mental qualities ($M=32.3$).

The group of major motives included socialization ($M=24.0$), self-improvement and health improvement ($M=23.5$), collectivistic disposition ($M=23.1$), and material benefits ($M=20.6$).

The third group—the one with weakly developed motives—consisted of three motives:

acquiring skills and knowledge needed in life ($M=18.6$), needing approval ($M=14.9$), and knowledge ($M=14.1$).

To determine gender differences in expressing individual motives according to Tro-

pnikov's questionnaire, we used Mann-Whitney's U -criterion. The comparative analysis (Table 6) showed that the hierarchy of the eight motives was the same for the male and female Paralympic athletes.

Table 6. Results from the comparative analysis of the expressiveness of the motives among Paralympic athletes

Motives	U -criterion of Mann Whitney and significance level	Gender	Rank
Communication and socialization	$U=288.500$ $p=.006$	men	37.49
		women	24.69
Knowledge	$U=436.500$ $p=.490$	men	33.38
		women	30.17
Material benefits	$U=324.500$ $p=.047$	men	38.54
		women	24.61
Development of character and mental qualities	$U=417.000$ $p=.335$	men	33.92
		women	29.44
Physical perfection	$U=423.500$ $p=.384$	men	33.74
		women	29.69
Improvement of health and self-esteem	$U=410.000$ $p=.290$	men	34.11
		women	29.19
Aesthetic pleasure and thrill-seeking	$U=449.000$ $p=.607$	men	33.03
		women	30.63
Acquisition of useful knowledge and skills	$U=349.000$ $p=.050$	men	37.51
		women	26.13
Need for approval	$U=406.000$ $p=.266$	men	34.22
		women	29.04
Increase in prestige, desire for glory	$U=460.000$ $p=.718$	men	32.72
		women	31.04
Collectivistic disposition	$U=409.000$ $p=.284$	men	34.14
		women	29.15

There were significant gender differences regarding three of the motives for sports activity.

The motive for communication and socialization ($p=.006$) was more strongly expressed among the male Paralympians. They were more interested in group training sessions with friends because of the opportunity to be part of a team and have fun during group training sessions. There was a similar trend regarding the material benefits ($p=.047$). Male

Paralympians were more interested in the material component of the sports activity, the possibility of receiving a dwelling, financial assistance, and visiting different countries worldwide. The motive for acquiring valuable knowledge and skills was also more strongly expressed among the men ($p=.050$). They thought it was important to develop skills that others appreciated and valuable not only in sports but also in other fields of life.

The results from the comparative analysis of the data according to the level of sports qualification of the Paralympians (Table 7) revealed significant differences in expressing individual motives according to Tropnikov's methods only for one of the 12 researched motives – approval ($p=.050$). This motive was most strongly expressed in the group of masters of sports and international masters of sports. For them, it is important that coaches, friends, and relatives take notice of their results, support them in competition, and be proud of their victories.

Table 7. Results from the comparative analysis according to qualification

Motives	Kruskal-Wallis H-criterion and significance level	Level of qualification	Rank
Communication and socialization	H=0.879 $p=.644$	MS/IMS	35.47
		CMS	29.59
		D	31.45
Knowledge	H=1.831 $p=.400$	MS/IMS	37.22
		CMS	31.28
		D	29.68
Material benefits	H=0.043 $p=.979$	MS/IMS	31.81
		CMS	32.81
		D	31.68
Development of character and mental qualities	H=1.204 $p=.548$	MS/IMS	34.81
		CMS	34.13
		D	29.45
Physical perfection	H=0.726 $p=.695$	MS/IMS	32.78
		CMS	28.66
		D	33.32
Improvement of health and self-esteem	H=0.190 $p=.909$	MS/IMS	30.88
		CMS	31.16
		D	33.02
Aesthetic pleasure and thrill-seeking	H=0.249 $p=.883$	MS/IMS	30.16
		CMS	33.28
		D	32.29
Acquisition of useful knowledge and skills	H=3.518 $p=.172$	MS/IMS	36.84
		CMS	35.63
		D	27.63
Need for approval	H=4.380 $p=.050$	MS/IMS	39.03
		CMS	24.47
		D	33.23
Increase in prestige, desire for glory	H=3.261 $p=.196$	MS/IMS	38.91
		CMS	31.34
		D	28.77
Collectivistic disposition	H=0.562 $p=.755$	MS/IMS	34.88
		CMS	30.34
		D	31.37

Note: MS – masters of sports; CMS – candidate masters of sports; D – discharge or absence of qualification

The obtained results about resilience revealed that the total resilience level of the Paralympic athletes was $M=71.3$ (Table 8), which corresponded to the average level of coping with stressful situations and showed the motivation built for transformational coping in training and competitions, as well as failures and injuries.

The engagement level was $M=29.0$ and corresponded to a low level, which showed

that Paralympians do not find enough chances to fulfill their goals and potential in sport. Training sessions, competitions, and sports activities are not always related to engagement and do not bring enough satisfaction and pleasure. This trend was characteristic of 54% of the sample. For 39.8 %, we found an average level. Only 6.2 % of the Paralympians showed high values regarding engagement.

Table 8. Results from the descriptive statistics of the resilience components

	Paralympic Athletes			
	Engagement	Control	Taking Risk	Resilience
<i>M</i>	29.0	26.5	15.8	71.3

The Scale Control was $M=26.5$, which corresponded to an average level. The Paralympians are aware that good preparation for competitions and their competitions allow them to influence their victory in competition but do not guarantee their win. They feel they themselves choose the way of their professional self-realization in sports activities.

The Scale taking Risk had the highest absolute value - $M=15.8$, corresponding to an average level. The Paralympians know that both victories and losses contribute to their becoming professionals and are willing to participate in competitions even if they are not absolutely sure of their win. They tend to take risks for the sake of the winning performance.

The comparative analysis showed no statistically significant differences in the resilience

scales regarding gender.

The level of qualification did not significantly influence the development of resilience and its components.

The results from the correlation analysis of the researched motives and resilience indicators revealed some positive correlations (Tables 9 and 10).

There were positive correlations between engagement and the need for socialization ($r=.415^{**}$), encouragement ($r=.243^*$), and self-improvement ($r=.283^*$). We can claim that the motives for socialization, encouragement, and self-improvement increase athletes' engagement in the preparatory period before competitions, enhance their concentration when elaborating techniques, increase their everyday efforts, and lead to overcoming themselves.

Table 9. Results from the correlation analysis of resilience components based on Kalinina's methods

Motives	Engagement	Control	Taking Risk	Resilience
Achievement		.280*		.228*
Competition		.292*		
Self-improvement	.283*	.355**		.313**
Socialization	.415**	.319**		.347**
Encouragement	.243*	.295**	.355**	.334**

Control correlated positively with all motives for sports activity – with achievement ($r=.280^*$), competition ($r=.292^*$), self-improvement ($r=.355^{**}$), socialization ($r=.319^{**}$), and encouragement ($r=.295^{**}$). Taking risks correlated positively with encouragement ($r=.355^{**}$). The total level of resilience was in a positive dependence with four of the motives for sports activities – achievement ($r=.288^*$), self-improvement ($r=.313^{**}$), socialization ($r=.347^{**}$), and encouragement ($r=.334^{**}$).

Table 10 presents the results from the

correlation analysis of resilience and motivation for sports activity among Paralympic athletes.

Engagement was positively linked with eight of the motives for sports activity – socialization ($r=.247^*$), material benefits ($r=.349^{**}$), development of character and mental qualities ($r=.311^{**}$), physical perfection ($r=.230^*$), improvement of health and self-esteem ($r=.390^{**}$), acquisition of knowledge and skills valuable in life ($r=.271^*$), approval ($r=.366^{**}$), and increase in prestige and desire for glory ($r=.263^*$).

Table 10. Results from the correlation analysis of resilience and motives based on Tropnikov's methods

	Engagement	Control	Taking Risk	Resilience
Socialization	.247*	.265*	.295**	.262*
Material benefits	.349**	.435**	.395**	.424**
Development of character and mental qualities	.311**	.262*	.214*	.274*
Physical perfection	.230*	.280*		.226*
Improvement of health and self-esteem	.390**	.355**	.294**	.354**
Aesthetic pleasure and thrill-seeking		.229*	.328**	.241*
Acquisition of useful knowledge and skills	.271*		.218*	.228*
Need for approval	.366**	.425**	.264*	.375**
Increase in prestige, desire for glory	.263*	.245*		.241*
Collectivistic disposition			.262*	

There were positive correlations between control and eight of the motives for sports activities – socialization ($r=.265^*$), material benefits ($r=.435^{**}$), development of character and mental qualities ($r=.262^*$), physical perfection ($r=.280^*$), self-esteem and health improvement ($r=.355^{**}$), aesthetic pleasure and thrill-seeking ($r=.229^*$), approval ($r=.425^{**}$), and increase in prestige and desire for glory ($r=.245^*$).

Taking risks correlated positively with the motives for: socialization ($r=.295^{**}$), material benefits ($r=.395^{**}$), development of character and mental qualities ($r=.214^*$), improvement of self-esteem and health ($r=.294^{**}$), aesthetic pleasure and thrill-seeking ($r=.328^{**}$),

acquisition of knowledge and skills valuable in life ($r=.218^*$), approval ($r=.264^*$), and collectivistic disposition ($r=.262^*$). The total level of resilience was in positive correlations with nine of the motives for sports activities – socialization ($r=.262^*$), material benefits ($r=.424^{**}$), development of character and mental qualities ($r=.274^*$), physical perfection ($r=.226^*$), improvement of health and self-esteem ($r=.354^{**}$), aesthetic pleasure and thrill-seeking ($r=.241^*$), acquisition of knowledge and skills valuable in life ($r=.228^*$), approval ($r=.375^{**}$), and increase in prestige and desire for glory ($r=.241^*$).

The results from the correlation analysis of the interrelations between sports motivation

and resilience in the group of Paralympians showed numerous links with the leading role of control and total level of resilience. At the same time, the resilience level and its components corresponded to a low level, which might mean the motives for sports activities had not been built strong enough to act like real motives that encouraged realizing one's potential in sports activities.

DISCUSSION AND CONCLUSION

The obtained motivation profile of Paralympic athletes shows that optimal motivation is presented by two motives—self-improvement and achievement, with self-improvement being the leading one. The motives for competition, encouragement, and socialization are reduced and could impede the training process. The obtained profile differs from the profile of elite athletes revealed by V. F. Sopov (2010), where the achievement motive was the leading one. The results and the outlined profile show that Paralympic athletes are oriented more toward intrinsic motivation than extrinsic one.

If we compare the two obtained motivation profiles, the dominating motives are similar. The self-improvement motive of MS in Tropnikov's methods is presented by two motives—physical perfection and mental development. The motives for increasing prestige and achievement coincide to a great extent in their nature. The third group of motives—competition and the motive for aesthetic pleasure and intense sensations—do not entirely coincide in their description, but there is some overlap.

The expression of the motives for achievement, self-improvement, competition, socialization, and encouragement is equal for both male and female Paralympians. Both men and women in the Paralympic sports are equally orientated toward achieving maximal results in sports, want to use their total capacity, enjoy

the training sessions, strive to develop their will and characters, as well as their ability to overcome obstacles on the way to success in competitions. According to Tropnikov's methods, however, there are significant differences in three of the motives – socialization, material benefits, and acquisition of valuable knowledge and skills. Male Paralympians prefer group training sessions and the development of skills valued by other people, and they are focused on the material benefits that sports activities might provide.

Forming motives in Paralympic athletes is related to the increase in their sports qualification – the higher the qualification, the stronger their orientation toward encouragement and approval. These results correspond to the results of the dissertation of O. M. Shamich (2020), who found that the material benefits (salary, bonuses, equipment, etc.) were significant subjective incentives in the group of Paralympic athletes with the highest achievements.

It is important to point out that the Paralympic athletes' resilience level is not high, regardless of the perfection of their sports skills and the achievement of new levels of sports qualification. This can indirectly demotivate athletes because wins, achievements, and results do not increase their engagement in sports activities or bring satisfaction and confidence in their chosen path.

The results from the correlation analysis of the group of Paralympic athletes show numerous positive correlations between sports motivation and resilience. The two components – control and total level of resilience- influence maintaining motivation the most. They are interrelated with almost all motives. Among the motives most interrelated to the resilience components are: encouragement, socialization, material benefits, development of character and mental qualities, and improvement

of well-being and health.

Research by Nascimento et al. (2020) also showed a high degree of dependence between resilience and intrinsic motivation of Paralympic athletes. Fletcher and Sarkar (2012) stated that athletes with high resilience levels could develop greater competence and prove their values in front of others as a form of motivation for training and sports competitions. High resilience levels are considered a necessary psychological attribute of high motivation levels and, hence, better results (Horn, 2015).

From this point of view, the main conclusion arising from this research refers to the positive influence of resilience on the sports motivation of Paralympic athletes. This shows that the ability to cope with challenges, adapt to changes, overcome obstacles, or withstand the pressure of unpleasant situations contributes to maintaining high motivation levels. According to the theory of cognitive assessment, social context and factors such as rewards, control, and consequences related to ego impact motivation and inner interest (Ryan & Deci, 2017).

Resilience is viewed as a general assessment of a person's mental health. It reflects the three most essential life dispositions: readiness for risk-taking, confidence in the ability to control events, and life engagement. It is also viewed as a psychological mediator contributing to coping with stress and preserving a person's potential for self-realization in stressful situations (Kudinov et al., 2015; Kudinov et al., 2017).

Control is the conviction that competition enables a person to influence the outcomes, even if this influence is not absolute and success is not guaranteed. Together with resilience, it acts as a key construct in Paralympians' motivation system. This model shows that competition and overcoming are strong inner convictions for Paralympic athletes.

The established peculiarities and interrelations allow for corrections in the preparation

of the competitive program of the Paralympic athletes by outlining the main directions of the work of the sports psychologist. We should point out that there is usually no full-time psychologist in the Paralympic Federation in Kazakhstan. This is more of an episodic job, and the psychological load burdens the coaches. This situation is because the education of sports psychologists in Kazakhstan does not take into consideration the specifics of Paralympic sports, the existence of psychological traumas, the stigma in society (which cannot always be avoided by the sports psychologist or the coach), and the lack of support (there are fewer publications related to Paralympic sports and less coverage in the media).

Future surveys in this area can be aimed at studying the motivational climate and its influence on the resilience of Paralympic athletes.

When developing a program to enhance sports motivation, it is important to consider the individual characteristics of Paralympic athletes. According to the results, four main types of motivation are identified in the motivation structure for Paralympic athletes: self-improvement, competition, achievement, and the motivation for aesthetic pleasure and thrill-seeking. Self-improvement is the leading motivation, and all the presented motivations are interconnected with hardiness components and elements of self-realization.

In the group of Paralympic athletes, the focus in the structure of sports motivation shifts towards hardiness – the motivation for transformational coping, which indicates a more significant burden placed on this system. Therefore, hardiness becomes the primary target for coaches and sports psychologists aiming to enhance athletes' self-realization (Krasnik, Aimagambetova, 2024).

When working with Paralympic athletes, relying on Newell's Constraints Model, which considers personal and environmental limita-

tions is advisable. A clear understanding of stable and flexible constraints will contribute to the growth of hardiness and motivation in Paralympic athletes Dehghansai et al., (2020).

REFERENCES

- Abalyan, A. (2016). Sovremennye tendentsii razvitiya Paralimpiyskogo sporta. *Adaptivnaya fizicheskaya kultura, 1*, 37–39.
- Banack, H., Sabiston, C., & Bloom, G. (2011). Coach autonomy support, basic need satisfaction, and intrinsic motivation of Paralympic athletes. *Research Quarterly for Exercise and Sport, 82*(4), 722–730. <https://doi.org/10.1080/02701367.2011.10599809>
- Bardiovský, M., Píteková, R., Ondrušová, Z., & Gálíková, Z. (2013). Sport and doing sports by the disabled: Post-traumatic return to “Surge et Ambula” (Get up and walk), “Per Aspera Ad Astra” (Through hardship to the stars). *Journal of Psychology Research, 3*(2), 104–112. <https://doi.org/10.17265/2159-5542/2013.02.005>
- Cardoso, V., Haiachi, M., Reppold Filho, A., & Gaya, A. (2018). The structural and human resources support for Brazilian Paralympic athletes. *Journal of Human Sport and Exercise, 13*(4), 873–883. <https://doi.org/10.14198/jhse.2018.134.14>
- Dad'ová, K. (2007). *Introduction to adapted physical activities*. Prague: Charles University.
- Dehghansai, N., Lemez, S., Wattie, N., Pinder, R. A., & Baker, J. (2020). Understanding the development of elite parasport athletes using a constraint-led approach: Considerations for coaches and practitioners. *Frontiers in Psychology, 11*, 502981. <https://doi.org/10.3389/fpsyg.2020.502981>
- Dieffenbach, K. D., & Statler, T. A. (2012). More similar than different: The psychological environment of Paralympic sport. *Journal of Sport Psychology in Action, 3*(2), 109–118. <https://doi.org/10.1080/21520704.2012.683322>
- Fagher, K., Forsberg, A., Jacobsson, J., Timpka, T., Dahlström, Ö., & Lexell, J. (2016). Paralympic athletes' perceptions of their experiences of sports-related injuries, risk factors, and preventive possibilities. *European Journal of Sport Science, 16*, 1240–1249. <https://doi.org/10.1080/17461391.2016.1192689>
- Fletcher, D., & Sarkar, M. (2012). A grounded theory of psychological resilience in Olympic champions. *Psychology of Sport and Exercise, 13*(5), 669–678. <https://doi.org/10.1016/j.psychsport.2012.04.007>
- Horn, T. S. (2015). Social psychological and developmental perspectives on early sport specialization. *Kinesiology Review, 4*(3), 248–266. <https://doi.org/10.1123/kr.2015-0025>
- Huang, C., & Brittain, I. (2006). Negotiating identities through disability. *Sociology of Sport Journal, 23*(4), 352–375. <https://doi.org/10.1123/ssj.23.4.352>
- Jefferies, P., Gallagher, P., & Dunne, S. (2012). The Paralympic athlete: A systematic review of the psychosocial literature. *Prosthetics and Orthotics International, 36*(3), 278–289. <https://doi.org/10.1177/0309364612450184>
- Krasmik, Yu. N., & Aimagambetova, O. K. (2024). *Methodological guidelines for the development of motivation in athletes as a manifestation of their personal self-realization during the competition preparation period*. Almaty: Kazakh University.
- Kudinov, S., & Hammad, S. (2015). Psikholicheskaya ustoychivost lichnosti kak osnova samorealizatsii subyekta. *Vestnik Rossiyskogo universiteta druzhby narodov. Seriya: Psikhologiya i pedagogika, 1*, 26–30.
- Kudinov, S., Kudinov, S., & Hammad, S. (2017). Zhiznestoykost kak prediktor samorealizatsii lichnosti v trudnykh zhiznennykh situatsiyakh. *Izvestiya Saratovskogo universiteta. Novaya seriya. Seriya Akmeologiya obrazovaniya. Psikhologiya razvitiya, 3*, 229–238.
- Machida, M., Irwin, B., & Feltz, D. (2013).

- Resilience in competitive athletes with spinal cord injury: The role of sport participation. *Qualitative Health Research*, 23(8), 1054–1065. <https://doi.org/10.1177/1049732313493673>
- Martin, J., Malone, L., & Hilyer, J. (2011). Personality and mood in women's Paralympic basketball champions. *Journal of Clinical Sport Psychology*, 5(3), 197–210. <https://doi.org/10.1123/jcsp.5.3.197>
- McLoughlin, G., Fecske, C. W., Castaneda, Y., Gwin, C., & Graber, K. (2017). Sports participation for elite athletes with physical disabilities: Motivations, barriers, and facilitators. *Adapted Physical Activity Quarterly*, 34(4), 421–441. <https://doi.org/10.1123/apaq.2016-0127>
- Nascimento, J., Jose, R., Freire, G., Granja, C., & et al. (2020). The role of resilience on motivation among Brazilian athletics and swimming parathletes. *Journal of Physical Education*, 32. <https://doi.org/10.4025/jphyeduc.v32i1.3201>
- Omar-Fauzee, M., Manisah, M., Soh Kim, G., & Norazillah, I. (2010). The participation motive in the Paralympics. *Journal of Alternative Perspectives in the Social Sciences*, 2(1), 250–272.
- Ryan, R., & Deci, E. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. Guilford Publications.
- Sarkar, M. (2017). Psychological resilience: Definitional advancement and research developments in elite sport. *International Journal of Sport and Performance Psychology*, 1, 1–4.
- Shamich, O. (2020). *Psikhologiya samo-realizatsii lichnosti v paraliimpiyskom sporte* (Doctoral dissertation, Institut psikhologii imeni G.S. Kostyuka NAPN Ukrainy).
- Shuba, V. (2017). Special aspects of Para-Olympic athletes' sports activity in the process of self-education. *Pedagogics, Psychology, Medical-Biological Problems of Physical Training and Sports*, 3, 139–145.
- Sopov, V. (2010). *Psikhicheskie sostoyaniya v napryazhennoy professionalnoy deyatel'nosti*. M.: Akad. proekt.
- Swanson, S., Colwell, T., & Zhao, Y. (2008). Motives for participation and importance of social support for athletes with physical disabilities. *Journal of Clinical Sport Psychology*, 2(4), 317–336. <https://doi.org/10.1123/jcsp.2.4.317>
- Torralba, J., Vieira, M., & Rubio, M. (2017). Motives for practicing sports of Spanish Paralympic athletes. *Revista De Psicologia Del Deporte*, 26(1), 49–60.
- Van Biesen, D., & Morbee, S. (2023). “The show must go on”: How Paralympic athletes safeguarded their mental well-being and motivation to train for the postponed Tokyo 2020 games. *Frontiers in Psychology*, 14, 1099399. <https://doi.org/10.3389/fpsyg.2023.1099399>

Corresponding author:

Tatiana Iancheva

Psychology, Pedagogy, Sociology Department
National Sports Academy “Vassil Levski”
21 Acad. Stefan Mladenov str.
1700, Sofia, Bulgaria
Email: iancheva.tatiana@gmail.com