

Motives of teenagers to participate in fencing and football sports

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Abstract:

The article highlights the results of a study to identify the motives to do sports for young men who are fencing and playing football in children's and youth sports schools in the Zaporizhzhia region (Ukraine). The study is based on the theoretical views of A. Leontiev and S. Rubinstein, according to which the motive is understood as a motivating cause, a reason for an activity, as well as the theory of self-determination of Edward L. Deci and Richard M. Ryan, according to which motives can be internal and external. In both the first and the second case, the mechanism of motivation is revealed through self-determination as the ability of a person to choose the strategy and tactics of their actions. Thus internal motivation is correlated with ways of satisfaction of the person of the needs (interest, aspiration to self-improvement, etc.), and external motivation - with behavior in a society connected with reward, estimation, pressure or opinion of other people. Based on these theoretical positions, the use of the method of determining the motivation of young athletes of A. Shaboltas is substantiated, which is based on the choice of one of the pairs of judgments, correlated with a certain motive (for 10 motives there are 45 pairs of judgments to compare). The following methods of mathematical statistics were used for data processing: histogram analysis; comparison of data by the Mann-Whitney test. As a result of the research, it was established that the data obtained in the groups of young fencers and football players differ statistically significantly on 5 scales of methodology out of 10. In particular, young football players have significantly more pronounced ($p < 0.01$) motives such as: "Social self-affirmation", "Socio-moral", "Achieving success in sports", "Sports-cognitive", "Social-patriotic". It is noteworthy that the recreational motive of young men who are engaged in fencing is expressed more clearly than in those who are engaged in football. However, this difference is not statistically significant. A promising area of research is to conduct a similar study on a larger sample internationally.

Key Words: internal and external motives, teenagers, fencing, football, children's and youth sports school.

Introduction

Youth sport is an environment in which not only the motor and personal qualities of man are formed, but also his idea of himself, a certain attitude to social processes and phenomena, as well as a special "Olympic" lifestyle. At the same time, the success of sports organizations in fulfilling their social mission is complicated by the fact that coaches do not have reliable information about the specifics of motivation of young athletes and, accordingly, do not have the opportunity to adequately build their teaching activities. Often the actions of coaches who do not take into account the motives of athletes, create an unfavorable psychological climate, which causes conflicts that reduce the quality of the training process and harm the formation of the personality of students.

Thus, in terms of improving the efficiency of coaches of children's and youth sports schools, it is relevant and timely to study the motives of young people to play sports, summarize the data obtained and prepare appropriate guidelines. In the Theory of A. Leontiev and S. Rubinstein, the motive is understood as a motivating cause, a reason for one or another activity. At the heart of the formation of a motive are images of material or imagined objects that make sense to man in terms of meeting its needs and determining the purpose of its activities (Leont'ev, 2005).

One of the provisions of the theory of activity is that one or another motive is associated with specific experiences of the subject, characterized either by positive emotions from the expectation of the embodiment of images, or negative - caused by the mismatch of the current state of affairs to the ideal (Leont'ev, 2005).

The formation and awareness of the motive requires a kind of work - motivation, which is a psychophysiological process that forms the motivation for activity, as well as provides the direction for this activity, its organization, activity and stability (Leont'ev, 2005).

The issue of motivation is considered in detail by the Self-Determination Theory of Edward L. Deci and Richard M. Ryan, according to which motivation can be internal and external. In this case, the mechanism of motivation is revealed through self-determination as the ability of the individual to exercise and experience the

choice: under conditions of internal motivation - a way to meet their needs; with external motivation - strategies and tactics of behavior in society (Deci&Ryan, 2012).

Note also that motivation can be stable or unstable. Motivation based on human needs is considered stable because in this case, it does not require additional reinforcement. Unstable motivation is one that is based on external stimulus and needs additional reinforcement from other people (Deci&Ryan, 2012).

At the heart of sports activities, like any other, are the motives of its subjects, which not only motivate a person to do sports but also give the subject a subjective, personal, meaning. At the same time, different athletes, engaged in the same sport, performing the same complexity and intensity of training loads, are often guided by different, sometimes directly opposite motives (Caglar, 2010). The same can be said about people who are engaged in physical culture (Boiche et al, 2008; Kilpatrick et al, 2003).

Analysis of the literature on this issue has shown that today identified and systematized the main groups of motives for adolescents in sports (Shaboltas, 1998). It is established that the motives for sports change during the adolescent period of life depending on age (Gavin et al, 2014), and sports qualification (Guzman&Kingston, 2012; Porozov, 2010; Stepanova et al, 2015). It was found that there are significant differences in motives for physical exercises and sports between boys and girls (Bollok et al, 2011; Lawler et al, 2017; Soares et al, 2013). Differences between the motives of professional and amateur athletes have been established (Modroco&Felix, 2016), as well as differences between people who prefer sports to health-improving activities (Hsu&Valentova, 2020; Kilpatrick et al, 2000). It is also established that the support of coaches of athletes' autonomy has a positive effect on internal motivation, as well as on the results of competitions (Gillet et al, 2010).

In addition, the researchers found that elite athletes show a higher level of intrinsic motivation than novice athletes. At the same time, the reasons for stopping sports in adolescence have a more pronounced connection with external than internal motivation. (Holopainen et al, 2021). It is also proved that purposeful formation of thinking skills in young people has a positive effect on forming their intrinsic motivation to play sports. (Marani et al, 2019).

In the context of the tasks of our study, it is important that the specifics of motives for sports largely depend on the nature of the competitive activities of athletes in the chosen sport. Taking this activity as a criterion for classification, among the diversity of sports activities, researchers distinguish such varieties as:

- sports in which success in competitions depends on the effectiveness of direct confrontation with the opponent (martial arts, fencing, etc.);
- sports in which winning competitions depends on the effectiveness of interaction with teammates (football, basketball, volleyball, etc.) (Dzhamgarov, 1982; Moradi, 2019).

Familiarity with publications highlighting research on various aspects of people's motivation to play sports has shown that there is currently a lack of data on the question of whether there are significant differences in the motives of sports between adolescents who do team and individual sports?

A scientific study was conducted to find the answer to this question.

Purpose and Objectives

The purpose of the research: to determine the features of motivation of young men who are engaged in fencing and football, as well as to identify differences in their motives for sports.

Objectives of the research:

- collect and process empirical data on the leading motives of youth sports in fencing and football;
- test assumptions about differences in the motivation of young men who do fencing and football;
- interpret the results of the research.

Materials and Methods

Participants

Pupils of children's and youth sports schools in the Zaporizhzhia region (Ukraine) took part in the research. The total number of respondents is 48 people, their age is 11-15 years.

Research participants were divided into two groups.

Athletes of the first group (n = 24, median - 12 years, minimum - 11 years, maximum - 13 years) trained at CYSS "Dieselist" in Tokmak and specialized in football, which according to T. Dzhamgarov, belongs to the first group of sports, formed by team sports activities, which includes: programming, control and regulation of individual actions; implementation of group interaction in the team; complicating the actions of the opposing team's players, as well as blocking its activities in general (Dzhamgarov, 1982).

The second group (n = 24, median - 13 years, minimum - 10 years, maximum - 15 years) consisted of young men who were engaged in fencing at CYSS №4. According to T. Dzhamgarov's classification, this sport belongs to the second group (martial arts), in which "bifrontal" mental activity is most pronounced, where athletes seek not only to increase the effectiveness of their actions but also to block, reduce the effectiveness of the opponent. Thus fights in sports of this group take place in the conditions of direct rigid physical contact between opponents (Dzhamgarov, 1982).

Athletes of both groups had 2-4 years of experience in sports.

The Research Design

The research was conducted in April-May 2020. It consisted of a simple collection of data on the motives of sports using a validated methodology. Data were collected once and were quantitative. After data collection and processing, two independent samples were compared.

Data collection instrument

The existing methodological literature today presents a large number of different techniques designed to determine the importance of various reasons that motivate an athlete to engage in the chosen sport (Dzhamgarov, 1982; Caglar, 2010; Kilpatrick et al., 2000; Modroco&Felix, 2016; Moradi et al., 2019; Pelletier et al., 2013). The analysis of the available methods indicates that most of them are not without shortcomings, in particular, they allow to some extent the impact on the results of the survey or testing the social desirability of the respondent's answers.

Taking into account the specifics of our study, we believe that among the available methods for determining motivation is the most adequate use of the method of A. Shaboltas, designed to identify dominant goals in sports (Shaboltas, 1998). Arguments in favor of using this technique were the following considerations:

- first, the underlying motives are selected on the basis of specially conducted empirical studies;
- secondly, the 10 motives-categories, which are the basis of the methodology, are an expression of a set of possible motives for sports activities at the optimal level of generalization;
- thirdly, since the methodology is based on independent pairwise comparisons of judgments, the impact of errors due to the social desirability of certain answers of respondents is reduced;
- fourth, the methodology follows the methodological guidelines of self-determination theory (SDT) on which we rely;

– fifth, the method of A. Shaboltas is quite common. Studies in which it has been used confirm its informativeness (Porozov, 2010; Stepanova et al., 2015; Blynova et al., 2020).

A. Shaboltas's method used by us is based on 10 motives categories, which correspond to certain statements. In particular, these are the motives:

- “Emotional Satisfaction” (ES) is a motive based on the desire to get joy from movement and physical effort. The following statement corresponds to this motive: “I get pleasure from sports because I can move and feel tense. It inspires me and lifts my spirits.”;

- “Social self-affirmation” (SSA) – motive, which is based on the desire to express themselves, and is expressed in the fact that sports and the successes achieved in this process are considered and experienced in terms of personal prestige, respect for acquaintances and spectators. This motive corresponds to the statement: “I do sports because I succeed. My schoolmates and sports team, as well as the audience, respect me for that. During competitions it is pleasant to be in the centre of attention, to increase the prestige”;

- “Physical self-affirmation” (PhSA) – motive, based on the desire for physical development, the formation of character. The following statement corresponds to this motive: “I am actively involved in sports because I want to develop physically and harden my character. I don't want to lose weight and become lazy, I want to be healthy” ;

- “Socio-emotional” (SE) is based on the desire to participate in sporting events because of their high emotionality, informal communication, and social and emotional looseness. The following statement corresponds to this motive, “I like sports because it is very interesting to compete because I am happy with the achievements. I like the atmosphere of the competition”;

- “Socio-moral” (SM) is based on the desire to succeed in the team, for which one needs to train and have good contact with partners and coach. The following statement corresponds to this motive: “My sports team should be in the lead. I want to contribute to this cause. I don't want to let my coach and friends down, it makes me train more”;

- “Achieving success in sports” (AS) – a motive based on the desire to succeed, improve personal sports results. The following statement corresponds to this motive: “I train regularly to maintain and improve the results achieved in order to achieve my goal.”;

- “Sports and cognitive ” (SC) is based on the desire to study the issues of technical and tactical training of scientifically sound principles of training. The following statement corresponds to this motive: “I want to understand the issues of technique, tactics, principles of the training process, to know how to practice better.”;

- “Recreational ” (R) is based on the need to play sports to compensate for the deficit of motor activity during mental (sedentary) work. The following statement corresponds to this motive: “I go in for sports to take a break from work, to get a boost, so sports are a hobby for me. I am less interested in sports results”.

- “Preparation for professional activity” (PPA) - a motive based on the desire to play sports in preparation for the chosen professional activity. The following statement corresponds to this motive, “it is possible to achieve good results in study and work only if I am healthy and physically developed. This is facilitated by sports”.

- “Civic and Patriotic” (CP) is based on the desire to succeed in competitions, primarily to maintain the prestige of the team, city, country. The following statement corresponds to this motive: “If I train regularly, I will be able to show high sports results, defend the honor of my team, sports society, our country”.

The method is based on the choice of one of the proposed propositions. Each judgment is compared to all others. In total, there are 45 pairs of judgments for comparison for 10 motives. Each choice is evaluated from 1 to 3 points, depending on the degree of predominance of one statement over another: "a little" - 1 point, "enough" - 2 points, "significantly" - 3 points. Points are not awarded for the answer "I don't know". Thus, the evaluation of each motive-judgment is performed 9 times due to which it is possible to rank the motives according to the degree of their expression on the basis of the obtained points. According to the methodology, the most preferred motives for the respondent are those motives for which he scored the highest number of points (Shaboltas, 1998).

The method assumes that the data for each motive are presented in the interval scale in points from 0 to 27. However, due to the fact that we need to get not an individual motivation card of the respondent, but to identify group patterns, we consider it appropriate to translate the number of points (interval scale) into level (ordinal scale). The algorithm for such a transformation is shown in table 1.

Table 1. Algorithm for translating points in the level of expression of the motive

% from the maximum value	Interval scale (received a score according to the method of A. Shaboltas)	Ordinal scale (level of severity)
0% - 20%	0-5	low
21% - 40%	6-10	below average
41% - 60%	11-16	average
61% - 80%	17-21	above average
81% - 100%	22-27	high

Statistical analysis

The obtained primary data were summarized in a table, the independent variables of which were: respondent code, sport; as dependent variables - motives. The cells of the table showed the degree of expression of the motif, presented in the ordinal scale. Codes were assigned to text labels (levels).

Data processing was performed using Statistica 10. Among the methods used: comparison of the degree of expression of the motives of young football players and fencers according to the Mann-Whitney test ($p < 0.01$); histogram analysis.

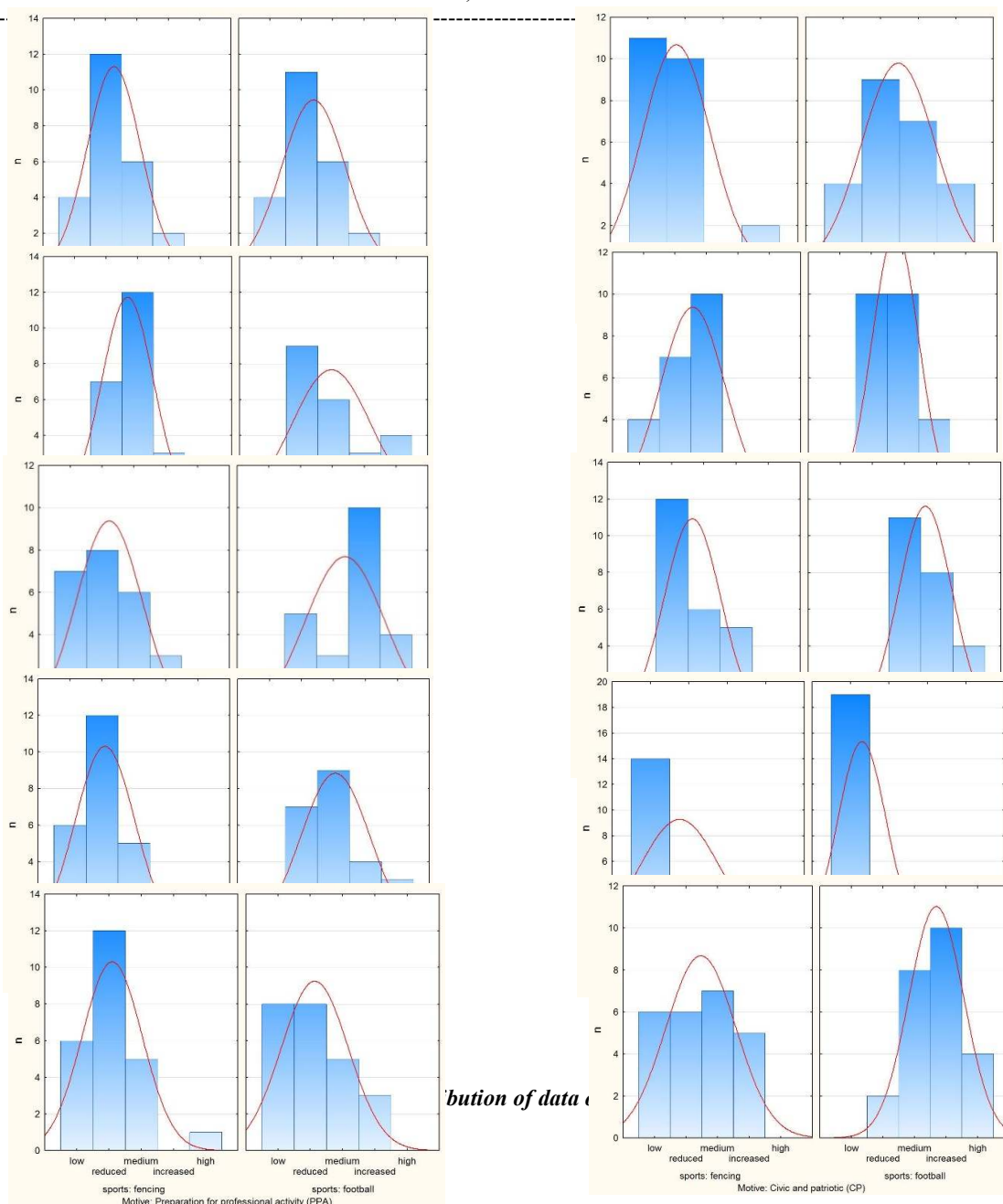
Results

To identify the statistical significance of these differences, we compared the data using the nonparametric Mann-Whitney statistical criterion ($p < 0.01$). The results of this comparison are presented in table 2.

Table 2. Comparison of data on the motives of sports for young men engaged in fencing (n = 24) and football (n = 24) according to the Mann-Whitney test

Motive	Sum of ranks		U	p_u	Z	p_z
	Fencing	Football				
"Emotional Satisfaction" (ES)	574	602	274	>0.01	-0.30	>0.01
"Social self-affirmation" (SSA)	467.5	708.5	167.5	<0.01	-2.61	<0.01
"Physical self-affirmation" (PhSA)	571	605	271	>0.01	-0.36	>0.01
"Socio-emotional" (SE)	553	623	253	>0.01	-0.76	>0.01
"Socio-moral" (SM)	439	737	139	<0.01	-3.15	<0.01
"Achieving success in sports" (AS)	425	751	125	<0.01	-3.50	<0.01
"Sports and cognitive" (SC)	442	734	142	<0.01	-3.15	<0.01
"Recreational" (R)	655	521	221	>0.01	1.67	>0.01
"Preparation for professional activity" (PPA)	584.5	591.5	284.5	>0.01	-0.07	>0.01
"Civic and Patriotic" (CP)	423	753	123	<0.01	-3.51	<0.01

The differences found in the comparison of data on the motives of young men who are playing football and do fencing, presented in table 2, become more apparent if they are presented in the form of histograms showing the number of respondents with a particular level of formation of the motive (figure 1).



'bution of data

Therefore, the analysis of the data in Tables 2 and Figure 1 revealed the following facts.

There is a statistically significant difference ($p < 0.01$) between young men who do fencing and play football according to the Mann-Whitney test on 5 scales of A. Shaboltas method out of 10. In particular, young football players have significantly more pronounced motives such as:

- “Social self-affirmation” (SSA), which consists in the desire to express themselves and is expressed in the fact that the achieved sports success is considered and felt, above all, in terms of personal prestige, respect for acquaintances, spectators;
- “Socio-moral” (SM), which is expressed in the desire to succeed with the team, for which one needs to train, have good contact with partners, coach;
- “Achieving success in sports” (AS), based on the desire to succeed, to improve personal sports results;
- “Sports and cognitive” (SC), based on the desire to study issues of technical and tactical improvement, as well as scientifically sound principles of sports training;
- “Civic and Patriotic” (CP), which is based on the desire for sports improvement, for the sake of successful performance in competitions to increase the prestige of the team, city, country.

No statistically significant differences were found in the formation of other motives.

In general, the data obtained show that the motivation of young people who play football is more pronounced and formed. Meanwhile, it is noteworthy that young men who are engaged in fencing, "Recreational" (R) expressed somewhat more clearly than in those who play football. However, these differences are not statistically significant.

Discussion

The data obtained are correlated with the data of our predecessors.

In particular, they coincide with the results of the Il'inskij's research that at the initial stage of sports an important role is played by the motive of intragroup sympathy, the essence of which is expressed in the desire of adolescents to engage in any sport in order to be among their peers and peers. They are kept in the sports section not so much the desire for high results and not even interest in this sport, as sympathy for each other and the general need for communication (Il'inskij, 2013).

The data obtained by us also correspond to the data of N. Stepanova, according to which one of the dominant motives of adolescents who do sports is a civic motive, characterized by awareness of the social significance of sports activities. Athletes with the dominance of this motive set themselves, above all, socially significant long-term goals (Stepanova at al, 2015). In addition, N. Stepanova notes that often the leading motive of young people to play sports is the motive of self-affirmation, characterized by excessive orientation of athletes to the external evaluation of their sports results (Stepanova at al, 2015).

Also, the data obtained are correlated with the results obtained earlier. In particular, with the thesis that training and especially performances in competitions, allow the athlete to feel the "real being", which is associated with victory over himself or his opponent. (Mazin, 2015). At the same time, the individual existence of athletes, due to their mutual influence on each other's behavior, forms a group existence of a sports team or team, which, in turn, subordinates the values, motives and behavior of individuals, thus forming group cohesion (Eys at al, 2019; Hoffman, 2013; Kleinert at al, 2012; Widmeyer at al, 2002; Zhundibaeva, 2016).

Since group cohesion is a key condition for winning a team sport, we believe that the more pronounced motivation of young people who play football, as well as the nature of the motives that are most pronounced in them, are related primarily to the fact that in addition to internal motivation in this sport plays an important role external motivation of the sports team.

In addition, in our opinion, the higher motivation of football players is associated with existing examples of life success, which are demonstrated by prominent representatives of this sport (Ronaldo, Messi, Pele etc).

At the same time, a rather unexpected result was that for young athletes involved in fencing, the desire to achieve personal success, improving sports results is not the dominant motive. The data obtained by us to some extent contradict the data of other studies (Porozov, 2010).

We believe that the data obtained by us, to some extent, indicate that the motivation to engage in sports of young fencers aged 10-17 years is emotional and hedonistic (Stepanova at al, 2015). In other words, these young men in their sports activities are guided mainly by the motive of emotional satisfaction - the desire to get joy from movement and physical effort.

The data obtained from the survey of young fencers indicate that at the initial stage, sports activities with predominantly "bifrontal" mental activity are attracted by the lack of pressure from an external goal, the implementation of which is a social duty or natural necessity. In this context, the position of SDT that young athletes' perception of their own actions as self-chosen is psychologically perceived by them as satisfaction is fully confirmed (Deci&Ryan, 2012).

We will note that probably, the revealed specificity of motivation of fencers points to a possible contradiction between attitudes of the trainer and real motives of employment of young sportsmen. Such a contradiction can significantly reduce the interest of young athletes in training, and in the worst-case - lead to premature cessation of sports.

In general, the data obtained indicate that there are significant personal differences between young men who do fencing and play football, which is expressed in their motivation to train and perform in competitions. At the same time, on the basis of existing data, it is impossible to say whether the differences are caused by the influence of the sports team, or - the peculiarities of education and initial sports selection. It is also possible that the data obtained by us indicate that the young man's choice of sport to some extent depends on his personality type.

Additional research is needed to confirm this assumption.

Conclusions

As a result of the study, it was found that among young athletes who play football and do fencing there is a statistically significant difference between the level of expression of certain motives for sports. In general, we observe a statistically significant difference between young men who are engaged in fencing and football on 5 scales of the method A. Shaboltas out of 10. In particular, the representatives of the game sport are significantly more pronounced ($p < 0.01$) such motives as: "Social self-affirmation" (SSA), "Socio-moral" (SM), "Achieving success in sports" (AS), "Sports and cognitive" (SC), "Civic and Patriotic" (CP).

Critical consideration of the results gives grounds to conclude that the motivation of young people who play football is more pronounced and formed. Meanwhile, it is noteworthy that the majority of young men who engage in fencing (at least at the initial stage), sports activities are attracted, above all, by the lack of pressure from an external goal, the implementation of which is a social duty or natural necessity.

The study gives grounds to believe that the personality type of young athletes, on the one hand, to some extent determines their choice of sport, and on the other - forms their motivation to practice and perform in competitions.

Note that the study was conducted on a small sample on the scale of one city, which leads to a high probability that the results are of local significance. In this regard, we consider a promising area of research to conduct a similar study on a large sample internationally.

We hope that the results will help to overcome the contradiction between the multi-vector aspirations of the subjects of the educational process, as well as reveal the hidden but most influential factors that determine the choice of young athletes as a space for personal development.

Conflicts of Interest.

The authors declare no conflict of interest.

References

- Blynova, O., Kruglov, K., Semenov, O., Los, O., Popovich, I. (2020). Psychological safety of the learning environment in sports school as a factor of achievement motivation development in young athletes. *Journal of Physical Education and Sport*, Vol.20 (1), 14-23.
- Boiche, J.C.S., Sarrazin, P.G., Grouzet, F.M.E., Pelletier, L.G., Chanal, J.P. (2008). Students' motivational profiles and achievement outcomes in physical education: A self-determination perspective. *Journal of Educational Psychology*, 100 (3), 688-701. DOI: 10.1037/0022-0663.100.3.688.
- Bollok S., Takács J., Kalmor Z., Dobay, B. (2011). External and internal sport motivations of young adults. *Biomedical Human Kinetics*, 3, 101-105. DOI: 10.2478/v10101-011-0022-5.
- Caglar, E. (2010). Motivational cluster profiles of adolescent athletes: an examination of differences in physical-self perception. *Journal of Sports Science and Medicine*, 9, 231-238. URL: https://www.academia.edu/3023095/Motivational_cluster_profiles_of_adolescent_athletes_an_examination_of_differences_in_physical_self_perception?email_work_card=title.
- Deci, E. L., & Ryan, R. M. (2012). Self-Determination Theory. In P. A. M. Van Lange, A. W. Kruglanski, & E. T. Higgins (Eds.). *Handbook of Theories of Social Psychology*, Vol. 1, 416-437. DOI: 10.4135/9781446249215.n21.
- Dzhamgarov, T. T. (1982). Psihologicheskaya sistematika vidov sporta i sorevnovatel'noj deyatelnosti [Psychological systematics of sports and competitive activity]. *Psihologiya i sovremennyy sport*. M. : FiS, 12-20 [In Russian].
- Eys, M., Kim, J., Godfrey, M. (2019). Group dynamics in sport and exercise. In M.H., Anshel, T.A., Petrie, J.A. Steinfeldt (Eds.), *APA handbook of sport and exercise psychology*, Vol. 1. Sport psychology. American Psychological Association, 399-418. DOI: 10.1037/0000123-021.
- Gavin, J., Keough, M., Abravanel, M., Moudrakovski, T., Mcbrearty, M. (2014). Motivations for participation in physical activity across the lifespan. *International Journal of Wellbeing*, 4, 46-61. DOI: 10.5502/ijw.v4i1.3.
- Gillet, N., Vallerand, R.J., Amoura, S., Baldes, B. (2010). Influence of coaches' autonomy support on athletes' motivation and sport performance: A test of the hierarchical model of intrinsic and extrinsic motivation. *Psychology of Sport and Exercise*, 11(2), 155-161. DOI: 10.1016/J.PSYCHSPORT.2009.10.004.
- Guzman, J.F., Kingston, K. (2012). Prospective study of sport dropout: A motivational analysis as a function of age and gender. *European Journal of Sport Science*, 12(5), 431-442. DOI: 10.1080/17461391.2011.573002.
- Holopainen, S., Lyyra N., Kokkonen, M. (2021). Training and motivation in childhood and adolescence in finnish elite footballers at different phases of their athletic careers. *Journal of Physical Education and Sport*, Vol. 21 (issue 6), 3476-3482. DOI:10.7752/jpes.2021.06471.
- Hoffman S. (2013). An Analysis of Group Dynamics in Sports. Senior Thesis. Haverford College. URL: https://scholarship.tricolib.brynmaur.edu/bitstream/handle/10066/11586/2013HoffmanS_thesis.pdf?sequence=1&isAllowed=y.
- Hsu, R., Valentova, J. (2020). Motivation for different physical activities: a comparison among sports, exercises and body/movement practices. *Psicologia USP*, 31, 1-10. DOI: 10.1590/0103-6564e190153.
- Il'inskij, S.V. (2013). Osobennosti motivacii sportsmenov v razlichnyh vidah sporta [Osobennosti motivacii sportsmenov v razlichnyh vidah sporta.]. *Vestnik Samarskoj gumanitarnoj akademii. Seriya: Psihologiya*, №1. URL: <https://cyberleninka.ru/article/n/osobennosti-motivatsii-sportsmenov-v-razlichnyh-vidah-sporta> [In Russian].
- Kilpatrick, M., Bartholomew, J.B., Riemer, H.A. (2000). Exercise motivation and self-determination theory: Development of the Test of Exercise Self-Determination (TESD). *Journal of Sport & Exercise Psychology*, 22, 58-59. <https://www.researchgate.net/publication/295485521>.

- Kilpatrick, M., Hebert, E., Bartholomew, J. (2003). Motivation for physical activity: Differentiating motives for sport and exercise participation. *Journal of Sport & Exercise Psychology*, 25, 80-81. <https://www.researchgate.net/publication/296266370>.
- Kleinert, J., Ohlert, J., Carron, B., Eys, M., Feltz, D., Harwood, C., Linz, L., Seiler, R., Sulprizio, M. (2012). Group Dynamics in Sports: An Overview and Recommendations on Diagnostic and Intervention. *Sport Psychologist*, 26, 412-434. DOI: 10.1123/tsp.26.3.412.
- Lawler, M., Heary, C. Nixon, E. (2017). Variations in adolescents' motivational characteristics across gender and physical activity patterns: A latent class analysis approach. Lawler et al. BMC Public Health, 17:661. DOI: 10.1186/s12889-017-4677-x.
- Leont'ev, A.N. (2005). Deyatel'nost'. Soznanie. Lichnost' [Activity. Consciousness. Personality]. Moscow: Smyisl, Akademiya. URL: <https://bookap.info/clasik/dsl/> [In Russian].
- Marani, A.M., Marcolongo, F., Melchiori, F.M., Cassese, F.P. (2019). Mental skill training to enhance sport motivation in adolescents. *Journal of Physical Education and Sport*, Vol.19 (Supplement issue 5), 1908-1913.
- Mazin, V. N. (2015). Sotsialnyie funktsii detsko-yunosheskogo sporta [Social functions of youth sports]. *Nauka i osvita*, 4, 118-124. URL: https://scienceandeducation.pdpu.edu.ua/doc/2015/JRN_4/26.pdf [In Russian].
- Modroco C., Felix, G. (2016). Motivation and self-concept in windsurfers: A study of professional and recreational participants. *Revista de Psihologia del Deporte*, Vol. 25, 1, 105-112. URL: <http://hdl.handle.net/2072/409111>.
- Moradi, J., Bahrami, A., Amir, D. (2019). Motivation for Participation in Sports Based on Athletes in Team and Individual Sports. *Physical Culture and Sport. Studies and Research*, 85. DOI: 10.2478/pcssr-2020-0002.
- Pelletier, L.G., Rocchi, M.A., Vallerand, R.J., Deci, E.L., Ryan, R.M. (2013). Validation of the revised sport motivation scale (SMS-II). *Psychology of Sport and Exercise*, 14(3), 329-341. DOI: 10.1016/J.PSYCHSPORT.2012.12.002.
- Porozov, D.L. (2010). Pedagogicheskie usloviya formirovaniya samosoznaniya u podrostkov v processe sportivnoj deyatel'nosti [Pedagogical conditions for the formation of self-awareness in adolescents in the process of sports activities]. Dissertation of the candidate of pedagogical sciences: 13.00.04. Cheboksary, 157 p. [In Russian].
- Shaboltas, A.V. (1998). Motivy zanyatiya sportom vysshih dostizhenij v yunosheskom vozraste [Motives for playing sports of the highest achievements in adolescence]. Dissertation of the candidate of psychological sciences: 19.00.03. St. Petersburg, 184 p. [In Russian].
- Soares, J., Antunes, H., Tillaar, R. (2013). A comparison between boys and girls about the motives for the participation in school sport. *Journal of Physical Education and Sport*, 13, 303-307. DOI: 10.7752/jpes.2013.03050.
- Stepanova, O.N., Kuhterina, N.N., Yurov, A.V. (2015). Vozrastnaya dinamika interesov i potrebnostej podrostkov v sportivnoj deyatel'nosti [Age dynamics of interests and needs of adolescents in sports activities]. *Prepodavatel' 21 vek*, 3. URL: <https://cyberleninka.ru/article/n/vozrastnaya-dinamika-interesov-i-potrebnostey-podrostkov-v-sportivnoy-deyatelnosti> [In Russian].
- Widmeyer, W.N., Brawley, L.R., Carron, A.V. (2002). Group dynamics in sport. In T. S. Horn (Ed.), *Advances in sport psychology*. Human Kinetics, 285-308.
- Zhundibaeva, E.K. (2016). Grupovaya splochnost' sportivnyh komand kak uslovie dostizheniya prevoskhodstva v sporte [Group cohesion of sports teams as a condition for achieving excellence in sports]. *Materialy VIII Mezhdunarodnoj studencheskoj nauchnoj konferencii «Studencheskij nauchnyj forum»*. URL: <https://scienceforum.ru/2016/article/2016023761> [In Russian].