

Correlation between personality traits of young athletes and their level of self-efficacy

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Published online: May 31, 2023

(Accepted for publication May 15, 2023)

DOI:10.7752/jpes.2023.05140

Abstract:

The purpose is to examine a correlation of personality traits of young athletes with different levels of self-efficacy components (n=114). We assume that self-efficacy of young athletes depends on their personality traits. However, there are differences in the research participants with high and low levels of self-efficacy. **Research methods:** correlation and cluster analyses, valid psycho-diagnostic methods, coefficients for finding statistical differences. The research conducted in Ukraine under conditions of martial law allowed obtaining significant scientific results. **Results.** The study looks at self-efficacy as an important component of professional training for young athletes. It substantiates the structure of self-efficacy and reveals the essence of its components: “subject activity” (SAS) and “interpersonal communication” (ICS). The research identifies a statistically significant correlation ($p < .05$; $p < .01$) of self-efficacy with personality traits of young athletes. It confirms statistically significant differences in the young athletes of Group 1 and Group 2 by scale SAS ($t = 29.445$, $p = .000$); Group I and Group II by scale ICS ($t = 5.453$, $p = .000$). The study lists traits which are equally important for the formation of self-efficacy by two components, namely: a high level of the development of sociability ($R = .279$, $p < .01$; $R = .477$, $p < .01$); even-tempereness ($R = .262$, $p < .01$; $R = .195$, $p < .05$) and openness ($R = .215$, $p < .05$; $R = .195$, $p < .05$) and a low level of neuroticism ($R = -.393$, $p < .01$; $R = -.281$, $p < .01$); depressiveness ($R = -.287$, $p < .01$; $R = -.192$, $p < .05$) and emotional lability ($R = -.454$, $p < .01$; $R = -.284$, $p < .01$). At the same time, masculinity is important for subject activity (SAS) ($R = .319$, $p < .01$), and extraversion is important for interpersonal communication (ICS) ($r = .394$, $p < .01$). **Conclusions.** The obtained results show one of the methods for operationalization of the problem-solving process in professional training for athletes. Understanding of the role of personality traits in increasing self-efficacy will help trainers develop the process of preparing young athletes for competitions successfully, taking into consideration the features of their self-awareness, form their mental toughness and constructive aggression in sports. The research on self-efficacy is promising in the context of improving professional skills of young athletes.

Key words: aggression, sociability, interpersonal communication, activeness, professional skills, youth.

Introduction

The problem of self-efficacy of subjects of sporting activities in global dimensions is one of those which have been studied thoroughly and those which have never lost their topicality and significance. Over the past decades the issue of athletes' self-efficacy in changeable conditions of social life has been enjoying popularity among sport researchers who permanently search for efficient technologies which are implemented in sports. It is proved by an increase in the number of studies in the area of sport psychology, concerning self-efficacy and its direct impact on decision-making, performing actions and experiences of an individual (Bandura, 1986; 1995; Bandura et al., 2001; 2003; Hjelle & Ziegler, 1992; Popovych et al., 2020a; 2020b; 2022e). On the road to high professional achievements, athletes have to withstand and overcome extreme physical and mental loads that determines importance and significance of a psychological factor in sport. At the level of sport of higher achievements, psychological follow-up is available but this experience is mainly fragmentary and unsystematic. The importance of psychological follow-up increases in the work with young athletes whose psyche is still flexible and reacts to different impacts – both positive and negative. Since young athletes have little professional experience, their trainer and psychologist should work together to develop their sense of competence, professional capacity and self-belief – the qualities forming self-efficacy of an individual.

Self-efficacy is immediately related to self-awareness of an individual. In this context it is necessary to mention the “objective self-awareness theory” developed in the 1970’ by a group of American scientists supervised by S. Duval and R. Wicklund (1972), C. Carver and M. Scheier (1981). “Objective self-awareness” is such a state of consciousness when the “Self” becomes its object. Like the social cognitive theory of personality by A. Bandura (1982), this theory acknowledges that the content of ideas about oneself is determined by a situation and every time only some parts of the “Self” are actualized. Self-awareness effects efficiency of activity, since it allows an individual to realize their features, their efficacy and, in case of dissatisfaction with themselves, make efforts to correct a situation. This idea is important for research on self-efficacy in sport, where individuals compares their abilities and ideas about themselves with the tasks set. At the same time, they compare their abilities with those of other team-mates and a team strategy for obtaining a team result. The more “verbalized” sense of self-efficacy and “uniqueness” an individual has in their consciousness, the more internally motivated they are.

The theory of A. Bandura (1982) has become fundamental for understanding the role of self-efficacy in sporting activities. It highlights that an individual is not only an object of a social impact, but also an active subject of behavior. The impact of an environment depends on internal determinants: inclination to self-analysis and self-regulation which are mediated by social expectations and a clear objective and tasks. Social expectations of subjects of sporting activities in a long list of studies (Popovych, 2014; Popovych et al., 2021a; 2022f) show dispositional, self-regulating, constructing and anticipating roles in achieving a sport result. Since an individual is able to predict results and plan the future, they can realize a possibility to cope with a future task. It is the issue of adequate evaluation of personal resources and awareness of defense mechanisms, restricting the use of them, that ensures accomplishment of tasks taking into consideration the conditions and requirements of a particular situation (Plokhikh, 2022; 2023). A special role in it is played by self-awareness of an individual and, in particular, by the self-concept based on self-perception and self-esteem, the idea of their abilities which have a regulatory function. Due to it, an individual is able to develop strategies of their activity and personal development independently, in particular, manage their actions and life on the whole. It actualizes the role of self-control and responsibility for personal actions. Some studies show that individuals with high self-efficacy take responsibility for everything they do and believe that many things in their life depend on their decisions and actions. Individuals with low self-efficacy see the reason for their failures in the effects of external circumstances (Bandura, 1995; Erturan et al., 2020; Pogorelov, 2012).

Taking into consideration the above ideas, we can state that research on self-efficacy in sporting activities is promising. Self-realization in sport is realization of an individual’s potential in the process of achieving sport results and a basis for self-improvement. Sporting activities allow young people to show their ability to achieve high sport results. Consequently, an athlete actualizes their ability to find internal resources, evaluate their sufficiency and a possibility to accomplish training, recovery and competition tasks successfully (Dumchene & Ginkevichene, 2017; Popovych et al., 2022c). Our opinion is similar to the statement of W. Mischel and Y. Shoda (1995) that a subject, choosing a direction of their actions, uses cognitive processes to imagine events and predict them. An athlete’s behavior is situationally unique due to cognitive abilities, which help differentiate situations.

Research on self-efficacy also has a social effect. Well-developed self-efficacy contributes to success of an individual able to achieve their aims. Studies on dominant mental states of self-regulation, self-actualization and self-realization in sport (Popovych et al., 2021b; 2021c; 2022a; 2022b; 2022c) and success in other activities of an individual (Nosov et al., 2020; 2021; Zinchenko et al., 2022) prove a correlation between efficient behavioral models and an expected result.

Self-efficacy is considered to be a personal quality ensuring an athlete’s success in both individual and team sports. It is a part of “team self-efficacy” in team sports. Team self-efficacy is considered to be an ability of an individual to compare their own abilities with abilities of others, evaluate different situations in terms of a common team strategy and, consequently, understand their role in improving team actions.

Hypothesis. We assume that 1) self-efficacy of young athletes depend on their personality traits; 2) there are differences in the research participants with high and low levels of self-efficacy.

Purpose. To examine a correlation of personality traits of young athletes with different levels of self-efficacy components.

Material and methods

Methodology. The research on self-efficacy of young athletes is based on the social cognitive theory of personality by A. Bandura (1982). Moreover, young athletes are considered to be subjects of self-organization and self-development (Popovych, 2017; Popovych et al., 2021d) able to have an active impact on the process of interaction and achievement of individual and team success. It contributes to understanding of the role of social-psychological and personal factors in the functioning of young athletes’ self-efficacy.

Methodological foundations of the empirical research on self-efficacy as a factor of young athletes’ success also involve application of psycho-diagnostic instruments, concerning the issues of an individual’s self-efficacy (Jerusalem, & Schwarzer, 1992). This methodology was tested in the studies of different authors who examined

the issues of a resource approach to stress management (Bodrov, 2000; Khraban & Silko, 2022), identification of athletes' psycho-emotional states (Cheban et al., 2020) and consideration of psycho-emotional and critical states in activities similar in complexity and extremeness (Kobets et al., 2021a; 2021b; Mamenko et al., 2022; Vavryniv & Yaremko, 2022; Zinchenko et al., 2020; 2021; 2023). We also took into account explication of axiopsychological projection of young people's achievements (Hulias, 2020; Hulias & Hoian, 2022), professional adaptation (Blynova et al., 2019, 2022; Halian et al., 2020; Plokhikh & Yanovska, 2022), psycho-physiological foundations of athletes' sporting activities (Cretu et al., 2021; Kalenchuk et al., 2023; Kozina et al., 2019; Prokhorenko et al., 2023), the systems of values and quality of life as regulators of an individual's behavior (Fomych, 2023; Halian, 2019; 2022; Karpenko & Klympush, 2023). The above studies consider the issues of self-efficacy in the context of athletes' motivation, emotional regulation, stress-resistance, emotional stability, adaptation and burnout.

A complex of diagnostic methods was selected according to the research purpose and subject. They were applied to diagnose personality traits and create a structure of the phenomenon investigated. The problems were solved by means of theoretical analysis and correlation research. It allowed identifying correlations between the research parameters and stating that self-efficacy of young athletes depends on their personality traits and mental states.

Participants. The research involves n=114 young male athletes with different levels of sport qualification aged 15–18 years. Descriptive frequency characteristics of the sample (M=15.84; SD=1.67). The research participants, selected randomly, represent sports schools of Lviv and Ivano-Frankivsk (Ukraine). They are participants and winners of the national and international tournaments – Ukrainian Championships and European Championships. The participants represented individual and team sports. Gender distribution is as follows: males (n=72; 63.16%) and females (n=42; 36.84%).

Organization and procedures of research. In 2020-2022 the research parameters were diagnosed by means of a number of psycho-diagnostic instruments. Such scales of the method “The Self-Efficacy Scale” (“SES”) (Sherer et al., 1982) as subject activity (SAS) and interpersonal communication (“ICS”) have become the registered indexes of self-efficacy. The indexes of personality traits of young athletes were determined by “Freiburg Multifactorial Personality Questionnaire” (“FPI-B”), presented as Form B adaptation by O. Lutsenko (2016). The registered indexes of the questionnaire “FPI-B” are: neuroticism (N), spontaneous aggressiveness (SA), depressiveness (D), irritability (I), sociability (S), even-temperedness (ET), reactive aggressiveness (RA), shyness (Sh), openness (O), extraversion-introversion (E-I), emotional lability (EL), masculinity-femininity (M-F). α -Cronbach coefficient of the empirical data by each method was from .8 to .9 (medium and high levels).

The research was organized by the scheme of a summative experiment. The selected scales relevantly reflected the research subject, allowed diagnosing personality traits that have a potential impact on the level of self-efficacy.

Statistical analysis. Statistical processing of the empirical data and graphical presentation of the results were performed by means of the package of statistical program “SPSS” v. 26.0 and “MS Excel”, diagrams were created by means of the graphical editor “MS Word”. Since the distribution in the obtained results is close to the norm, the parametric statistics were used: for correlation – Pearson's R correlation coefficient; for comparison of the dispersion of the distinguished groups – Student's t-test. Values at the level of .05 and .01 are considered to be statistically significant.

Results

Tabl. 1 presents descriptive frequency characteristics of psychological content parameters by the method “The Self-Efficacy Scale” (“SES”) (Sherer et al., 1982).

Table 1. Descriptive statistics by the scales of the method “SES” (Sherer et al., 1982)

Parameters	Test scores		Statistics of empirical results					
	Tx-points	SD Tx-points	min	max	X	Me	SE	SD
Subject activity	30.6	23.8	-11	77	35.5	46	3.33	25.8
Interpersonal communication	3.8	11.1	-22	27	3.8	7	1.23	9.7

Note: Tx-points – the average test scores of the method; SD Tx-points – the standard deviation of the average test scores; min – minimum values; max – maximum values; Me – median; X – average value; SE – standard error; SD – standard deviation.

Evaluation of the young athletes' personality traits was performed by “Freiburg Multifactorial Personality Questionnaire” (“FPI-B”) (adaptation by Lutsenko, 2016). Tabl. 2 presents the results of diagnostics of the respondents' personality traits.

Table 2. Descriptive statistics by questionnaire “FPI-B” (adaptation by Lutsenko, 2016)

FPI	Statistics					
	min	max	X	Me	ED	SD
N	1	9	3.58	6	.30	2.33
SA	1	9	3.61	5	.29	2.55
D	1	9	3.92	4	.30	2.33
I	1	9	5.80	6	.29	2.28
S	1	9	6.03	6	.15	1.19
ET	1	9	5.81	6	.28	2.18
RA	1	9	5.63	7	.30	2.39
Sh	1	9	6.03	6	.25	1.90
O	1	9	6.18	6	.28	2.21
E-I	1	9	5.30	5	.31	2.38
EL	1	9	5.18	6	.29	2.29
M-F	1	9	5.15	5	.31	2.45

Note: N – neuroticism; SA – spontaneous aggressiveness; D – dpressiveness; I – irritability; S – sociability; ET – even-temperedness; RA – reactive aggressiveness; Sh – shyness; O – openness; E-I – extraversion-introversion; EL – emotional lability; M-F – masculinity-femininity.

The next stage of the verifying strategy of the research allowed testing the hypotheses about a correlation between self-efficacy –the scale “SES” (Sherer et al., 1982) and individual personality traits – the scales questionnaire “FPI-B” (adaptation by Lutsenko, 2016). We consider that individual traits of young athletes contribute to efficient process of social adaptation and mental regulation, and, consequently, support the development of self-efficacy. The results of correlation analysis by Pearson’s R correlation coefficient between the scale of self-efficacy “SES” and the scales of the questionnaire “FPI-B” are given in Tabl. 3.

Table 3. Results of correlation analysis by Pearson’s R correlation coefficient of the research parameters

Scales	Self-efficacy	
	Subject activity (SAS)	Interpersonal communication (ICS)
N	-.393**	-.281**
SA	-.115	.198*
D	-.287**	-.192*
I	-.106	.205
S	.279**	.477**
ET	.262**	.195*
RA	.065	.107
Sh	-.331**	-.401**
O	.215*	.154
E-I	.339**	.394**
EL	-.454**	-.284**
M-F	.319**	.466**

Note: * – p<.05; ** – p<.01; N – neuroticism; SA – spontaneous aggressiveness; D – dpressiveness; I – irritability; S – sociability; ET – even-temperedness; RA – reactive aggressiveness; Sh – shyness; O – openness; E-I – extraversion-introversion; EL – emotional lability; M-F – masculinity-femininity.

The obtained results show a considerable number of statistically significant correlations, in particular, nine in each scale – SAS and ICS. Further, according to the research strategy, division of the sample into two groups was performed by the data of the scale SAS: high – Group 1 (n=64 (56.14%) and low – Group 2 (n=50 (43.86%) “subject activity” (SAS). The research participants were divided into groups by the indexes of the median (Me) by means of cluster analysis. There were also two groups with high – Group I (n=70; 61.40%) and low – Group II (n=44; 38.60%) self-efficacy by the scale ICS.

Since dispersion of the values is close to normal distribution and there is also a sufficient number of the research participants (n=114), Student’s t-test was applied to test the statistical difference of the distributions. Statistically significant differences between the groups were confirmed: for the scale SAS (t = 29.445, p=.000) and for the scale ICS (t = 5.453, p=.000).

Therefore, division of the research participants into two groups for further comparative analysis showed it appropriateness.

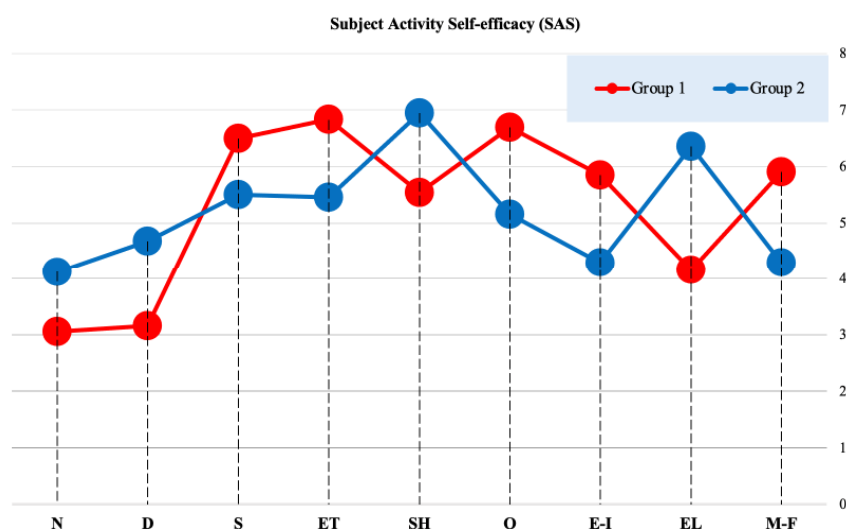
Tabl. 4 presents empirical results of the differences of personality traits of the sample of young athletes of Group 1 and Group 2 by the scale SAS.

Table 4. Differences of the sample of Group 1 and Group 2 by the scale SAS

FPI-B	Levene's test		t-test for equality of the means					95 CI	
	F	p	t	P	X(G1-G2)	m	lower	upper	
	N	.092	.762	-3.413**	.001	-1.893	.555	-3.003	-.783
D	.167	.685	-2.842**	.006	-1.616	.569	-2.754	-.478	
S	.087	.769	3.543**	.001	1.000	.282	.435	1.565	
ET	.086	.713	2.128*	.019	1.146	.404	-.048	2.275	
Sh	.113	.738	-2.729**	.008	-1.277	.468	-2.213	-.340	
O	.072	.838	1.937**	.007	1.803	.558	-.036	2.197	
EL	.262	.611	-4.193**	.000	-2.201	.525	-3.252	-1.150	
M-F	.210	.649	2.690**	.009	1.621	.603	.414	2.827	

Note: F – Levene's test, Student' t-test, p – significance of the criterion, X(G1-G2) – difference of the means; m – mean squared error of the differences of the means; 95 CI – credible interval for the difference; N – neuroticism; SA – spontaneous aggressiveness; D – dpressiveness; I – irritability; S – sociability; ET – even-temperedness; RA – reactive aggressiveness; Sh – shyness; O – openness; E-I – extraversion-introversion; EL – emotional lability; M-F – masculinity-femininity; * – p<.05; ** – p<.01.

A diagram was used to compare personality traits of the young athletes by the mean of the distribution (M) between Group 1 and low Group 2 levels of "Subject Activity Self-efficacy" (SAS) (Fig. I).



Note: Group 1 – research participants with a high level of "subject activity" (SAS); Group 2 – research participants with a low level of "subject activity" (SAS); N – neuroticism; SA – spontaneous aggressiveness; D – dpressiveness; I – irritability; S – sociability; ET – even-temperedness; RA – reactive aggressiveness; Sh – shyness; O – openness; E-I – extraversion-introversion; EL – emotional lability; M-F – masculinity-femininity.

Figure I. Diagram of comparison of personality traits of the young athletes in Group 1 and Group 2 by "subject activity" (SAS)

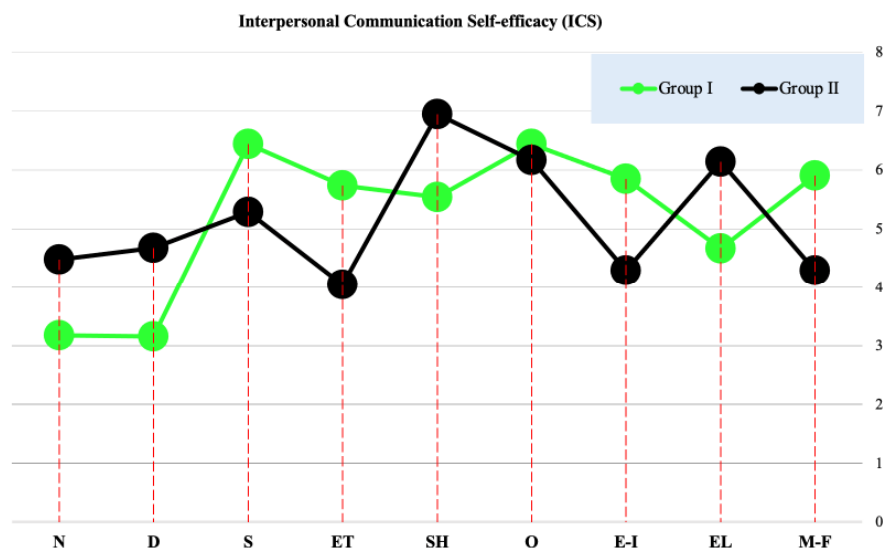
Tabl. 5 and Fig. I present empirical results of the differences of the sample of young athletes of Group I and Group II by the scale ICS.

Table 5. Differences of the sample of Group I and Group II by the scale ICS

FPI	Levene's test		t-test for equality of the means				95 CI	
	F	p	t	p	X(G1-G2)	m	lower	upper
	N	1.015	.318	-2.117*	.039	-1.297	.612	-2.523
S	.685	.411	3.987**	.000	1.150	.288	.573	1.728
ET	.540	.832	2.534*	.017	1.571	.621	.319	2.768
Sh	.668	.417	-2.912**	.005	-1.414	.486	-2.386	-.442
O	1.005	.384	-2.124*	.029	-1.301	.541	-2.413	-.069
E-I	.040	.842	2.521*	.014	1.560	.619	.321	2.800
EL	.328	.569	-2.477*	.016	-1.476	.596	-2.669	-.283

Note: F – Levene's test, Student's t-test, p – significance of the criterion, X(G1-G2) – difference of the means; m – mean squared error of the differences of the means; 95 CI – credible interval for the difference; N – neuroticism; SA – spontaneous aggressiveness; D – dpressiveness; I – irritability; S – sociability; ET – even-temperedness; RA – reactive aggressiveness; Sh – shyness; O – openness; E-I – extraversion-introversion; EL – emotional lability; M-F – masculinity-femininity; * – p<.05; ** – p<.01.

A diagram was used to compare personality traits of the young athletes by the mean of the distribution (M) between high Group I and low Group II levels of “Interpersonal Communication Self-efficacy” (ICS) (Fig. II).



Note: Group I – research participants with a high level of “interpersonal communication” (ICS); Group II – research participants with a low level of “interpersonal communication” (ICS); N – neuroticism; SA – spontaneous aggressiveness; D – depressiveness; I – irritability; S – sociability; ET – even-tempereness; RA – reactive aggressiveness; Sh – shyness; O – openness; E-I – extraversion-introversion; EL – emotional lability; M-F – masculinity-femininity.

Figure II. Diagram of comparison of personality traits of the young athletes in Group I and Group II by “interpersonal communication” (ICS)

The obtained results given in Tabl. 4 and Tabl. 5 and visualized in Fig. I and Fig. II, demonstrate availability of statistically significant correlations of “subject activity” (SAS) and “interpersonal communication” (ICS) with personality traits presented through relevant scales by “Freiburg Multifactorial Personality Questionnaire” (adaptation by O. Lutsenko (2016)). We can state that Tabl. 4 presents more correlations with the scales at the level ($p < .01$) – seven, at the same time, Tabl. 5 presents two correlations with the scales at the level ($p < .01$). Such an interesting scientific fact proves that, by the levels of distribution, there is a stronger correlation of “subject activity” (SAS) of the athletes with their personality traits. Content parameters of sporting activities will depend on the level of development of the listed personality traits more than communication processes.

Discussion

Self-efficacy affects an athlete’s choice of certain actions, efforts and patience. Athletes who trust themselves will persist in achieving their aims, especially under unfavorable conditions, and set ambitious sport tasks. The obtained results show that the young athletes have a sufficient (medium) level of self-efficacy in the area of subject (sporting) activity ($X=35.5 \pm 3.33$) (see Tabl. 1). The normal range is from -7 to +53 points. This scale characterizes confidence in the ability to cope with tough professional situations. The basis for such confidence is understanding of personal potential and possibilities for its realization. The obtained results show that the young athletes are concentrated on achieving the highest results of their sport mastery. However, they evaluate their potential as ordinary. The reason for it is a few factors. Firstly, we should address the sources of self-efficacy. They include previous successful activity, indirect experience (situation modeling), verbal convictions, physiological and emotional states etc (Bandura, 1977). The global COVID-19-pandemic, especially its initial stage, has reduced the number of immediate contacts between athletes, canceled sports tournaments etc (Hudimova, 2021; Hudimova et al., 2021). As a consequence, personal positive experiences and examples of other athletes have stopped being a valuable source of self-efficacy. It also affected athletes’ physical states, their fitness and, as a result, their self-confidence. The role of knowledge, motivation and identification is emphasized in the studies on self-determination, self-regulation and socialization in sporting activities. For instance, T. Zernova (2016) maintains that a combination of such internal motives as “knowledge” and competence and the external motive of “identification” are actual incentives of sporting activities (Zernova, 2016). The role of personal qualities and abilities of an individual, their knowledge and skills, moral and physical characteristics and also disposition of an individual is highlighted by Popovych et al. (2020a). Scientists consider these characteristics to be the basis for self-realization of an individual in sporting activities (Popovych et al., 2022d).

Athletes’ personality traits are distinguished among the sources of self-efficacy. This source of self-efficacy was diagnosed by “Freiburg Multifactorial Personality Questionnaire” (adaptation by O. Lutsenko (2016)). The empirical research, the statistically significant coefficients measured in it and the two confirmed hypotheses

allow stating that the following scales are basic ones: neuroticism (N), spontaneous aggressiveness (SA), depressiveness (D), irritability (I), sociability (S), even-temperedness (ET), reactive aggressiveness (RA), shyness (Sh), openness (O). The scales: extraversion-introversion (E-I), emotional lability (EL), masculinity-femininity (M-F) are additional ones.

Most obtained results are within the medium level (see Tabl. 2). However, some of them are close to a high level, while others – to a low level. Low indexes were obtained by three scales (neuroticism, depressiveness and spontaneous aggressiveness).

A medium index ($X=5.63\pm 0.3$) was obtained by the scale “reactive aggressiveness” (RA) (see Tabl. 2). We do not relate it to psychopathic characteristics measured by this scale. It is rather a manifestation of their aspiration to dominate, aggressive attitude towards sports rivals. The latter can be regarded as sports anger in a competitive environment and as constructive aggression. Being open for others (the scale “openness” (O)), the respondents expect it from other people. This unsatisfied need which is very important for adolescence, results in an unstable emotional state accompanied by spontaneous aggressiveness, that is reflected in impulsive behavior. This is also a consequence of insufficiently developed self-regulation, one of the most important qualities of an athlete. Frequent mood swings, increased excitation and irritability, characteristic of adolescence, determine emergence of anxiety.

We also focus on a number of other qualities characterizing the young athletes participating in the research. They actualize their needs and also reflect their potential. For instance, the scale “sociability” (S) characterizes social activeness. The young athletes need communication and are ready for satisfying this need. At the same time, they need a trustful and sincere interaction with others (the scale “openness” (O)). The young athletes are resistant to the impact of stress factors in usual life situations. It is shown in their evaluations by the scale “even-temperedness” (ET). Self-confidence, optimism and activeness which qualitatively characterize high values by this scale are fundamental for such resistance. Potential for self-development is proved by a high level of self-criticism (the scale “openness” (O)) and by aspiration to satisfy socially-oriented needs and the formation of qualities that will ensure success of their sporting activities (see Tabl. 2).

Taking into consideration self-efficacy as an integral characteristic of an individual, we assumed that there is a correlation of it with other personality traits. Therefore, we performed correlation analysis of a correlation of the scales of self-efficacy with the described personality traits by the method “FPI-B” (see Tabl. 3). The obtained results proved availability of a negative correlation of the scale “subject activity” with “neuroticism” (N) ($-.393$, $p<.01$), “depressiveness” (D) ($-.286$, $p<.01$), “shyness” (Sh) ($-.331$, $p<.01$) and “emotional lability” (EL) ($-.454$, $p<.01$). In addition, we diagnosed a positive correlation of “subject activity” (SAS) with “sociability” (S) ($.279$, $p<.01$), “even-temperedness” (ET) ($.262$, $p<.01$), “openness” (O) ($.215$, $p<.05$), “extraversion” (E-I) ($.239$, $p<.01$) and “masculinity/femininity” (M-F) ($.319$, $p<.01$). Thus, the above personality traits affect the formation of self-efficacy of young athletes in the area of subject activity.

Important results are also obtained in the scale of self-efficacy “interpersonal communication” (ICS). It was found that interpersonal communication has a negative correlation with “neuroticism” (N) ($-.281$, $p<.01$), “depressiveness” (D) ($-.1282$, $p<.05$), “shyness” (Sh) ($-.401$, $p<.01$) and “emotional lability” ($-.284$, $p<.01$). There was a positive correlation of the scale ICS with “spontaneous aggressiveness” (SA) ($.198$, $p<.05$), “sociability” (S) ($.477$, $p<.01$), “extraversion/introversion” (E-I) ($.394$, $p<.01$) and “masculinity/femininity” ($.466$, $p<.01$). The obtained results of the scale ICS reflect a general tendency with regard to the role of personality traits in the formation of communicative competence.

Correlations of the indexes of self-efficacy can differ depending on sports: team or individual. Some studies highlight that sport self-efficacy in the representatives of individual sports is related to social self-efficacy, whereas there is no such a correlation in the representatives of team sports. At the same time, representatives of team sports consider themselves successful (efficient) independently of the area of activity (Kornienko et al., 2016).

Differences in the manifestation of personality traits of young athletes of Group 1 ($n=64$) with high self-efficacy and Group 2 ($n=50$) with low self-efficacy by the scale SAS and Group I ($n=70$) with high self-efficacy and Group II ($n=44$) with low self-efficacy by the scale ICS were empirically diagnosed. By Student’s t-test differences of the empirical values between the groups are statistically significant by the majority of personality traits examined in the research (see Tabl. 4 and Tabl. 5).

Qualitative analysis of the obtained results showed that “neuroticism” (N) and “depressiveness” (D) are more distinct in the young athletes with low self-efficacy by the scale SAS. These traits indicate their anxiety. Combined with “shyness” (Sh) and “emotional lability” (EL) they reduce self-confidence of the young athletes. “Sociability” (S), “even-temperedness” (ET), “openness” (O) and masculine traits (M-F) are more distinct in the young athletes with a high level of self-efficacy in subject activity (see Tabl. 6). Even-temperedness reflects stress-resistance. High values prove reliable protection from the impact of stress-factors in usual life situations. Self-confidence, optimism and activeness are crucial for that. The obtained results allow stating that high anxiety and lack of self-confidence are key determinants of low self-efficacy of the young athletes in the area “subject activity”. They prevent them from using their resources efficiently to “enhance” professional skills.

The scale ICS also has its specificity. In particular, “neuroticism” (N), “shyness” (Sh) and “emotional lability” (EL) are more distinct in the young athletes with low self-efficacy. “Sociability” (C), “extravertedness” (E-I) and “extraversion” (E-I) are more distinct in the athletes with high self-efficacy.

The obtained results allow inferring that there are fundamental traits forming self-efficacy of the young athletes both in the area “subject activity” (SAS) and in the area “interpersonal communication” (ICS). In particular, the formation of self-efficacy by both components need: well-developed “sociability” (S) ($R = .279$, $p < .01$; $R = .477$, $p < .01$), “even-temperedness” (B) ($R = .262$, $p < .01$; $R = .195$, $p < .05$) and “openness” (O) ($R = .215$, $p < .05$; $R = .195$, $p < .05$), and a low level of “neuroticism” (N) ($R = -.393$, $p < .01$; $R = -.281$, $p < .01$), “depressiveness” (D) ($R = -.287$, $p < .01$; $R = -.192$, $p < .05$) and “emotional ability” (EL) ($R = -.454$, $p < .01$; $R = -.284$, $p < .01$). At the same time, “masculinity” (M-F) ($R = .319$, $p < .01$) is important for SAS and “extravertedness” (E-I) ($R = .394$, $p < .01$) is important for ICS.

Despite the plausibility of the obtained results, it is necessary to take into consideration the following. One of the main ideas of A. Bandura (1986) implies that self-efficacy depends on specificity of a situation and is not a disposition which can be measured with a personality questionnaire (Bandura, 1986). Therefore, it is necessary to take into account two important characteristics. First of all, an individual should realize their ability to perform a certain activity, and not a personal boundary, which is a particular contour of “comfort zone”. Moreover, it is important to pay attention not to its global, but specific, partial specificity. Thus, each individual differently imagines self-efficacy in different areas of life, including sporting activities. In addition, success of an athlete depends on both self-efficacy, their desire to achieve a high result and available skills. It outlines prospects of further research in the domain of young athletes’ self-efficacy.

Conclusions

1. The study substantiates that self-efficacy is an individual’s awareness of their ability to cope with specific tasks, situations and choose a strategy and models of behavior taking it into consideration. This is a cognitive mechanism of an individual’s regulation of their behavior.

2. The research focuses on a distinct need of young athletes appropriately evaluate and use available abilities, form and develop skills, improving them to the level characteristic of adults (an external source self-efficacy).

3. The study finds statistically significant differences and proves that an internal source of young athletes’ self-efficacy involves their personality traits which have a different effect on “subject activity” (SAS) and “interpersonal communication” (ICS) ($p < .05$; $p < .01$).

4. High self-efficacy in the area “subject activity” (SAS) requires a sufficient level of development of traits forming their psychological resistance and self-regulation. Traits meeting the needs of adolescence – interpersonal communication and a career choice are the most important traits in the area “interpersonal communication”.

5. The study diagnoses differences by Student’s t-test in manifestation of personality traits in the young athletes with high and low levels of self-efficacy ($p < .05$; $p < .01$): by the scale SAS ($t = 29.445$, $p = .000$) and by the scale ICS ($t = 5.453$, $p = .000$).

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