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Original Article

Comparative study of internet dependence, anxiety, and depressive behaviors in junior athletes

ANTONINA HRYS[1], ALUA YESMAKHANOVA[2], NATALIIA CHEPELEVA[3], MARIIA PAVLIUK[4], VIOLETTA LAPPO[5], SVITLANA RUDNYTSKA[6], KYRYLO HUTSOL[7], IHOR HOIAN[8]
[1,2,3,4,6,7]Kostiuk Institute of Psychology of the NAPS of Ukraine, Kyiv, UKRAINE
[1,4]Interregional Academy of Personnel Management, Kyiv, UKRAINE
[2]State University of Telecommunications, Kyiv, UKRAINE
[5,8]Vasyl Stefanyk Carpathian National University, Ivano-Frankivsk, UKRAINE

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Abstract:
Aim. This study aimed to empirically compare and theoretically substantiate the manifestations of Internet-dependent, anxious, and depressive behaviors in junior athletes. **Methods.** The total sample consisted of 130 junior athletes, divided equally into male (n = 65; 50%) and female (n = 65; 50%) subsamples. The male subsample included athletes from track and field, weightlifting, boxing, gymnastics, jogging, football, and basketball. The female subsample included athletes from track and field, artistic gymnastics, Greco–Roman wrestling, handball, and volleyball. The junior athletes ranged from 14 to 19 years (M = 17.04; Me = 17.00; SD = ± 2.35). During the confirmatory research, all research participants attended sports schools for children and youth (Kyiv, Ukraine). They represented teams U-15, U-17, and U-19 and actively participated in various sports competitions. **Results.** It was found that by the grouping variable “gender differentiation”, the subsample of female junior athletes (Group 1) significantly surpassed female junior athletes (Group 2) in “Internet addiction” and “anxiety” ($p < .010$). By the grouping variable “Internet addiction”, the superiority of respondents (Group A) was recorded on the “depressiveness” scale ($p < .001$), i.e., respondents with high levels of Internet addiction demonstrated depressive behavior. It was also established that by the grouping variable “anxiety”, the group of respondents (Group C) had two superiorities on the scales “Internet addiction” ($p < .050$) and “depressiveness” ($p < .001$). By the grouping variable “depressiveness”, a similar pattern was observed: the group of respondents (Group E) had superiority on the scales “Internet addiction” ($p < .001$) and “anxiety” ($p < .050$). The comparison of correlation matrices revealed only one difference: a correlation between anxiety and depressiveness was established in the females’ subsample, whereas such a correlation was not observed in the males’ subsample. **Discussion and conclusions.** It was substantiated that comparative research into the manifestations of junior athletes’ Internet-dependent, anxious, and depressive behavior is a comparative confirmatory strategy aimed at identifying significant differences by the main grouping variables: “Internet addiction”, “anxiety”, “depressiveness”, and “gender differentiation”. It was justified that the symptom complex of three dimensions is a relevant indicator of psycho-emotional stability and efficacy in junior athletes’ sports activities. It is recommended that the established scientific facts and patterns be implemented in the learning and training process at sports schools for children and youth.
Keywords: addiction, gender differentiation, defense mechanisms, mental health, mental state, aggression, psychological correction

Introduction

The symptom complex of Internet addiction, anxiety, and depressiveness is most commonly diagnosed in junior athletes. Despite considerable attention paid to these phenomena, we currently observe a growing interest in the above issues among scientists, organizers, and coaches. Obviously, the reason for this growing interest is not only attention to youth sports but also the need for searching mental resources that would allow for having a competitive advantage in final stages of competitions. This is important for all stages of competitions, particularly for those when the flag is raised and the anthem is played. In adolescence, the most difficult transitions in the professional development of the athlete’s personality occur. One can start engaging in professional sports in childhood. However, at this age, the individual realizes that their professional choice is sports activities since professional self-realization is associated with early adolescence.

Complex mental processes related to forming the value and meaning sphere, shaping worldviews, and setting life priorities can put considerable pressure on the individual’s psycho-emotional sphere (Popovych et al., 2024). Junior athletes’ sports competitions are always accompanied by excessive positive and negative emotions, maximalism manifestations, and the desire to achieve winning outcomes at any cost. In adolescents, professional attitudes towards sports, unlike amateur performances, gain awareness and planning, i.e., become more

Corresponding Author: ANTONINA HRYS, E-mail: antoninasgris@gmail.com

manageable and mature. It is worth remembering that at this age, athletes pursue their education and career, i.e., in addition to the training process, they are involved in educational and professional activities. There is a positive effect when junior athletes pursue a career related to or associated with sports activities such as a coach. Over the past decades, the pace of life has rapidly changed. Societal transformations sweeping our society through pandemics, military conflicts, and other trials also exert considerable influence on the young individual's personality. Studies on pre-game expectations deserve special attention. It was found that pre-game expectations can put extreme pressure on the junior athlete's personality, which can occasionally have a radical impact and change the course of a competition or match. Overall, the problem of social expectations for junior athletes is complex, affecting all areas of their lives. As a rule, the expectations of the subjects of the educational process who manifest Internet addiction, anxiety, and depressiveness reflect the content of these phenomena. In this context, we should address, for instance, anxious expectations.

Junior athletes' anxiety is a common phenomenon that can make a considerable impact on one's health status, behavior, and development. Anxiety manifests as uncertainty, fear of the future, lack of confidence, and high sensitivity to stressful situations. Studies by V. Plokhikh et al. (2025) attempt to examine young respondents' psychological defenses and coping strategies in dealing with current stressful factors. The researchers focused attention on symptoms of anxiety and depression, actualizing defense mechanisms or coping behaviors. In particular, rationalization and compensation are referred to as the most effective coping mechanisms that allow for reducing uncertainty and relieving anxiety. A number of studies contain theoretical information and indirect empirical facts, which testify that Internet addiction and depressiveness are derivatives of anxiety (Celik & Haney, 2023; Paykel, 2008). As shown in a number of studies, Internet addiction among junior athletes and adolescents in general is the burning issue (Khovrych & Mekshun, 2021; Plokhikh & Akimov, 2014). Addictions negatively affect physical and mental health and sports results. Excessive use of the Internet causes a reduction in the time that a junior athlete can spend on training, physical rehabilitation, and social interaction. All this has a negative effect on their physical and psycho-emotional states.

Shaping the individual's psycho-emotional regulation and increasing emotional stability are the aforementioned latent resources. Internet addiction can cause anxiety, depression, social isolation, and worse training and competition results. Excessive use of the Internet can replace real training and communication. In turn, it can affect physical and mental development radically. A number of studies on dominant mental states clarified on junior samples in studies by I. Popovych et al. (2019) operationalize respondents' internalized characteristics in dominant psycho-complexes. These psycho-complexes are dominant mental states. It is clear that excessive anxiety or depressiveness will have a corresponding effect on the mental state that will be internalized by their manifestations. The research by F. Lebrun et al. (2019) substantiates that individual psychological consultations, seeking professional help, and social support are the most effective measures to cope with clinical depression. Permanent support is necessary on the road to winning outcomes. Studies by empirically establish and substantiate that cohesive interaction between the coach and the athlete is the key to successful sports activities of both subjects. Thus, psychological aid and support can reduce the pressure of excessive manifestations of Internet addiction, anxiety, and depressiveness and remove the individual from the risk zone.

Comparative research into manifestations of junior athletes' Internet-dependent, anxious, and depressive behavior is a comparative confirmatory strategy aimed at identifying significant differences by the main grouping variables: "Internet addiction", "anxiety", "depressiveness", and "gender differentiation". Comparing the manifestations of this behavior in junior sports can enable us to establish important scientific facts and patterns that can be addressed with prevention and effective psychological support.

Hypothesis. We assume that 1) manifestations of junior athletes' Internet-dependent, anxious, and depressive behavior are an interdependent psycho-complex of dominant patterns; 2) the studied parameters will show significant superiority by the grouping variables.

Aim. To empirically compare and theoretically substantiate the manifestations of junior athletes' Internet-dependent, anxious, and depressive behavior.

Methods

The methodology of our comparative research into the manifestations of junior athletes' Internet-dependent, anxious, and depressive behavior includes the tenets of addictive behavior (Ryding & Kaye, 2018) and modern studies on the interrelationship between physical activeness and addictive behavior (Chen & Zhang, 2024); anxious behavior and the effects of anxiety on winning outcomes (Taylor et al., 2023; Xi, 2020); depressive behavior (Nestor et al., 2022; Paykel, 2008) and the consequences of mild and severe depressions in amateur and professional sports (Lebrun et al., 2019; Celik & Haney, 2023). We also considered fundamental theoretical, modern empirical, and experimental studies on the phenomena of addiction, anxiety, and depressiveness in sports (Lin et al., 2025). Attention was paid to the psychophysiological patterns of learning and training activities (Borysenko et al., 2020; Cretu et al., 2021; Kozin et al., 2022), age-related and sensitive psychological changes in development, psychological wellbeing and the temporal component of junior athletes' sports activities (Plokhikh et al., 2025), psycho-emotional resources and their activation in extreme conditions of the individual's activities, and other relevant studies that were important for research design and statistical analysis (Zinchenko et al., 2022).

Participants. The comparative confirmatory strategy involved two subsamples of junior athletes. The males' subsample included junior athletes (n = 65; 50.00%) who represented the following sports: track and field, weightlifting, boxing, gymnastics, jogging, football, and basketball. The females' subsample included junior athletes (n = 65; 50.00%) who engaged in the following sports: track and field, artistic gymnastics, Greco-Roman wrestling, handball, and volleyball. The junior athletes ranged from 14 to 19 years (M = 17.04; *Me = 17.00;* SD = ± 2.35). All research participants attended sports schools for children and youth (SSCY) and specialized sports schools for children and youth of the Olympic Reserve (SSCYOR) (Kyiv, Ukraine). They represented teams U-15, U-17, and U-19. All respondents regularly trained and participated in championship competitions of Kyiv region, the city of Kyiv, National championships, and a number of International tournaments.

Organization of Research. The research was conducted using a comparative confirmatory strategy. Sports schools were selected randomly to participate in the research. Administrations gave consent to carry out a confirmatory cross-sectional study and attend agreed training sessions and tactical classes. We chose the busiest period of the year – the end of the academic year and the end of championship competitions. It was between May and June. In May 2025, empirical material was collected using Google Forms to obtain quality empirical data. The junior athletes voluntarily agreed to participate in the research, gave their consent, and did tests in Google Forms. Awareness, confidentiality, and voluntariness ensured relevance and reliability of the empirical material, which was confirmed by the statistical consistency of Cronbach's alpha (α). The research involved three variables: Internet addiction (IA), anxiety (A), and depressiveness (D). All these variables served as the grouping variables. Additionally, gender differentiation was also used as the grouping variable.

Procedures and instruments. Research into the manifestations of junior athletes' Internet-dependent, anxious, and depressive behavior employed valid, reliable, and representative psychodiagnostic tools, which were adapted to Ukrainian samples and tested in experimental and empirical studies on juniors' samples (Kariyev et al., 2025). Researchers aimed to apply methodologies with linear measurement scales. A single differentiated scale provided exhaustive information and a quality cross-section of the studied phenomenon. Gadget addiction, prolonged use, and "getting stuck" on social media were diagnosed using the "Internet Addiction Test" (IAT) by O. Kaminska (2014). This tool combined two parts of statements – general and content. The general part consisted of eleven statements, and the content part included sixteen statements. Respondents chose one answer out of six options for each statement. The linear measurement scales had a range of measurement from 5.00 to 30.00 points. We did not divide the respondents into norm, risk, and addiction groups since we aimed to conduct comparative research into behavior manifestations, establish significant correlations, and identify differences.

The statistical consistency of the "IA" scale, as indicated by Cronbach's alpha (α), was α = .896, confirming a high level of statistical data reliability. The manifestations of anxious behavior were diagnosed using the methodology "Personality Scale of Manifest Anxiety" (PSMA) by J. Taylor (1953), which combined sixty statements and contained a linear measurement scale of the same name – "Anxiety" (A). The statistical consistency of "PSMA" (Taylor, 1953), as indicated by Cronbach's alpha (α), was at a medium level (.821). Junior athletes' manifestations of depressive behavior were diagnosed using the methodology "Self-Rating Depression Scale" (STDS) developed by W. Zung (1965).

The version adapted by B. Mikhailov et al. (2014) was employed. The respondents answered twenty statements. A unipolar 4-point Likert scale was used. Notably, this psychodiagnostic tool allows for diagnosing mild to severe depression. The minimal measurements were interpreted as no depression symptoms. Junior athletes reported their psycho-emotional states in adverse conditions of learning and training or competitive activities. The respondents undergoing rehabilitation therapy or recovery practices were not involved in the research. The statistical consistency of the "STDS" (Zung, 1965), as indicated by Cronbach's alpha (α), was at a medium level (.803).

Statistical Analysis. Empirical data were collected using Google Forms, which were integrated into the matrices of empirical data "MS Excel". The program "IBM SPSS Statistics", version 27.02.01.01 (231), was used to perform comparisons and statistical operations. The list of statistical operations and research criteria is given below: 1) statistical consistency – Cronbach's alpha (α); 2) descriptive frequency characteristics – the minimum value of variance (min), the maximum value of variance (max), the mean (M), the mean squared deviation (SD); 3) identifying a normal distribution – asymmetry (A), excess (E); the Kolmogorov-Smirnov Test (K-S); 4) establishing correlations – Spearman's correlation coefficient (r_s); 5) verifying the significance level of a normal distribution – Lilliefors test (D); 6) determining the effect size – Coen's d using a 95% confidence interval; 7) identifying significant differences between independent samples – Student's t-test; 8) testing the equality of variances – Levene's test (F); 9) comparing the means of unevenly distributed variance – Welch's t-test; 10) interpreting bivariate significant correlations and differences at a level of $p \leq .050$, $p \leq .010$ and $p \leq .001$.

Results

The empirical stage of comparative research was aimed at achieving the goal and testing a number of statistical hypotheses. To ensure reproducibility and the relevant use of statistical criteria depending on variance, we used the main descriptive characteristics (the mean (M) and the mean squared deviation (SD)). To outline the extreme values of variance, we used the minimum value (min) and the maximum value (max). A normal distribution was identified using descriptive characteristics (asymmetry (A), excess (E)) and the Kolmogorov-Smirnov Test (K-S). Tabl. 1 presents these measurements in the females' sample for the studied variables of the methodologies.

Table 1. Descriptive statistics of the variables of Internet addiction, anxiety, and depressiveness in the males' subsample (Group 1, n = 65)

Variables	min	max	M	SD	Normal distribution		
					A	E	K-S[a] (p)
Internet addiction (IA)	31.00	84.00	56.95	±13.52	-.008	-.762	.200*
Anxiety (A)	20.00	48.00	30.15	±5.52	-.099	-.450	.200*
Depressiveness (D)	29.00	61.00	43.72	±7.82	-.633	-.958	.098

Note: min – the minimum value of variance; max – the maximum value of variance; M – the mean of variance; SD – the mean squared deviation; A – asymmetry; E – excess; K-S – Kolmogorov-Smirnov Test; * – the lower significance level for the Kolmogorov-Smirnov test; [a] – Lilliefors test for verifying the significance level.

It was found that the two scales "IA" (p = .200) and "A" (p = .200) had a normal distribution in the males' subsample according to the Kolmogorov-Smirnov Test results. The parameters of asymmetry and excess tend to have a normal distribution on these scales. However, no normal distribution was observed on the "D" scale, and the values of asymmetry and excess also indicated this. Let us consider the results in the other subsample. Tabl. 2 presents descriptive frequency characteristics and the Kolmogorov-Smirnov Test data in the females' subsample for the studied variables of the methodologies.

Table 2. Descriptive statistics of the variables of Internet addiction, anxiety, and depressiveness in the females' subsample (Group 2, n = 65)

Variables	min	max	M	SD	Normal distribution		
					A	E	K-S[a] (p)
Internet addiction (IA)	31.00	79.00	50.72	±10.83	.414	.094	.200*
Anxiety (A)	15.00	49.00	26.08	±4.23	.794	1.104	.039
Depressiveness (D)	26.00	60.00	41.60	±7.41	.190	-.440	.200*

Note: min – the minimum value of variance; max – the maximum value of variance; M – the mean of variance; SD – the mean squared deviation; A – asymmetry; E – excess; K-S – Kolmogorov-Smirnov Test; * – the lower significance level for the Kolmogorov-Smirnov test; [a] – Lilliefors test for verifying the significance level.

A similar situation was observed in the females' subsample. The Kolmogorov-Smirnov Test shows that the two scales "IA" (p = .200) and "D" (p = .200) had a normal distribution. On these scales, the values of asymmetry and excess tend to have a normal distribution. However, no normal distribution was observed on the "A" scale, and the values of asymmetry and excess also indicate this. Since the studied subsamples cannot be considered a large sample (n > 100), we should use nonparametric statistics. The comparative confirmatory research strategy involves a number of comparisons using grouping variables. Tabl. 3 presents the results of the comparison of the subsamples, Group 1 (n = 65; 50.00%) and Group 2 (n = 65; 50.00%), by the grouping value "gender differentiation" using Student's t-test for two independent samples with determining effect size.

Table 3. Results of the comparative analysis of the junior athletes' subsamples, Group 1 and Group 2, by the grouping variable "gender distribution"

Scale	Levene's test		Student's t-test for the equality of variances					d Cohen's
	F	p	t	N	p	95 CI		
						Lower	Upper	
IA	4.875*	.029	2.899	122.176	.004	1.97599	10.48555	.509
A	.013	.908	2.994	128	.003	1.38231	6.77154	.525
D	.647	.423	1.589	128	.114	-.52033	4.76648	.279

Note: * – data presented using Welch's t-test; Group 1 – the males' subsample of junior athletes; Group 2 – the females' subsample of junior athletes; F – Levene's test for the equality of variances; p – significance level; t – Student's t-test; 95 CI – confidence interval; d Cohen's – effect size; IA – Internet addiction; A – anxiety; D – depressiveness.

Two significant differences were identified in the parameters IA (t = 2.899; p = .004; d = .509) and A (t = 2.994; p = .003; d = .525). Both values demonstrated a medium effect size according to Cohen's d. According to Levene's test, we obtained critical values of IA (F = 4.875; p = .029), hence Welch's t-test was used. In summary, there are two superiorities of the males' subsample by the grouping variable "gender differentiation". Thus, male junior athletes significantly surpass female junior athletes in "Internet addiction" and "anxiety". Tabl. 4 presents the results of the comparison of Group A (a high level) and Group B (a low level) by the grouping variable "Internet addiction" using Student's t-test with determining effect size.

Table 4. Results of the comparative analysis of the groups with a high level (Group A) and a low level (Group B) of the parameter by the grouping variable "Internet addiction"

Scale	Levene's test		Student's t-test for the equality of variances					d Cohen's
						95 CI		
	F	p	t	N	p	Lower	Upper	
A	.006	.938	1.505	128	.135	-.78564	5.77231	.313
D	.495	.483	3.519	128	< .001	2.35515	8.40485	.733

Note: * – data presented using Welch's t-test; Group A – a high level of Internet addiction; Group B – a low level of Internet addiction; F – Levene's test for the equality of variances; p – significance level; t – Student's t-test; 95 CI – confidence interval; d Cohen's – effect size; A – anxiety; D – depressiveness.

One significant difference was identified in the parameter D (t = 3.519; p < .001; d = .733). We recorded values close to a large effect size indicated by Cohen's d. According to Levene's test, no critical values were observed. Tabl. 5 presents the results of the comparison of the subsamples, Group C (a high level) and Group D (a low level), by the grouping variable "anxiety" using Student's t-test with determining effect size.

Table 5. Results of the comparative analysis of the groups with a high level (Group C) and a low level (Group D) of the parameter by the grouping variable "anxiety"

Scale	Levene's test		Student's t-test for the equality of variances					d Cohen's
						95 CI		
	F	p	t	N	p	Lower	Upper	
IA	2.040	.156	2.443	128	.016	1.00842	9.60741	.429
D	1.053	.307	2.943	128	.004	1.26156	6.43813	.517

Note: * – data presented using Welch's t-test; Group C – a high level of anxiety; Group D – a low level of anxiety; F – Levene's test for the equality of variances; p – significance level; t – Student's t-test; 95 CI – confidence interval; d Cohen's – effect size; IA – Internet addiction; D – depressiveness.

Two significant differences were identified in the parameters IA (t = 2.443; p = .016; d = .429) and D (t = 2.943; p = .004; d = .517). Both values have a medium effect size indicated by Cohen's d. In summary, there are two superiorities of Group C by the grouping variable "anxiety". Tabl. 6 presents the results of the comparison of the subsamples, Group E (a high level) and Group F (a low level), by the grouping variable "depressiveness" using Student's t-test with determining effect size.

Table 6. Results of the comparative analysis of the groups with a high level (Group E) and a low level (Group F) of the parameter by the grouping variable "depressiveness"

Scale	Levene's test		Student's t-test for the equality of variances					d Cohen's
						95 CI		
	F	p	t	N	p	Lower	Upper	
IA	.453	.502	3.859	128	< .001	4.80184	14.90965	.823
A	.629	.429	2.440	128	.016	.77210	7.40017	.521

Note: * – data presented using Welch's t-test; Group E – a high level of depressiveness; Group F – a low level of depressiveness; F – Levene's test for the equality of variances; p – significance level; t – Student's t-test; 95 CI – confidence interval; d Cohen's – effect size; IA – Internet addiction; A – anxiety.

Two significant differences were identified in the parameters IA (t = 3.859; p < .001; d = .823) and A (t = 2.440; p = .016; d = .521). One value has a large effect size (IA), and the other has a medium effect size (A) indicated by Cohen's d. In summary, there are two superiorities of Group E by the grouping variable "depressiveness". Thus, the respondents (female and male junior athletes) with high levels of depressiveness manifest apparent Internet addiction and anxious behavior. We established correlations and created two correlation matrices for the males' (Group 1) and females' (Group 2) subsamples using Spearman's correlation coefficient (r_s). Tabl. 7 presents correlation matrices of the research.

Table 7. Comparison of the correlation matrices of the males' (Group 1) and females' (Group 2) subsamples

Scale	**Spearman's coefficient**	**IA**		**A**		**D**	
		Group 1	**Group 2**	**Group 1**	**Group 2**	**Group 1**	**Group 2**
Internet addiction (IA)	r_s	1	1	.079	.126	**.438****	**.483****
	p			.534	.318	< .001	< .001
Anxiety (A)	r_s	.079	.126	1	1	.147	**.299***
	p	.534	.318			.244	.015
Depressiveness (D)	r_s	**.438****	**.483****	.147	**.299***	1	1
	p	< .001	< .001	.244	.015		

Note: IA – Internet addiction; T – Anxiety; D – depressiveness; Group 1 – males' subsample of junior athletes; Group 2 – females' subsample of junior athletes; * – correlation at $p \leq .050$ i ** – correlation at $p \leq .010$, given **in bold type**.

It was established that the studied groups had a similar set of correlations in the parameters of "Internet addiction": Group 1 ($r_s = .438$; $p < .001$); Group 2 ($r_s = .483$; $p < .001$) and "depressiveness": Group 1 ($r_s = .438$; $p < .001$); Group 2 ($r_s = .483$; $p < .001$). The set of correlations in the parameter "anxiety" is different – Group 2 ($r_s = .299$; $p = .015$). A correlation was established in the females' subsample, whereas no correlation was established in the males' subsample. All the correlations were direct.

Discussion

For the first time, the phenomenon of Internet addiction was defined by Dr. I. Goldberg (1995), who identified the following main symptoms of this disorder: painful negative stress or distress; damage to physical, psychological, interpersonal, economic, or social statuses. About thirty years have passed since then, and a large number of studies have been carried out. However, the abovementioned phenomenon has not only strengthened its positions, but has also had different forms and types. Although junior athletes' overexertion is related to physical exhaustion and injuries, it is primarily aimed at searching for a comfortable space. This search can manifest through social isolation, attempts to create a personal virtual world of social media communication. All these attempts could be regarded as a search for nonproductive coping strategies. Severe anxiety and chronic stress determine the dominance of the time decentration "future" (Plokhikh et al., 2025). High expectations of junior athletes for themselves and other participants of competitions can only lead to severe anxiety. The dominance of anxiety does not allow athletes to demonstrate quality results in learning and training and sports activities. The theoretical outlines relevantly characterize the empirical picture of our research.

Quantitative indicators reflected in the descriptive frequency characteristics (see Tabl. 1 and 2) give reasons to state that these three dimensions have medium and above-medium values. Overall, the empirical picture is encouraging. The comparison by the grouping variable "gender differentiation" (see Tabl. 3) revealed superiority of the males' subsample (Group 1) in "Internet addiction" and "anxiety" ($p < .010$). We do not seek to discover what caused the respondents' isolation and Internet addiction. Probably, searching for a comfortable space could lead to severe anxiety. Since the females' subsample (Group 2) undergoes identical learning, training, and competition loads, they seem to deal with them more successfully. Further comparisons by the grouping variables were aimed at revealing a relationship between the studied phenomena. The comparison by the grouping variable "Internet addiction" (see Tabl. 4) revealed the only superiority of the respondents (Group A) on the "depressiveness" scale ($p < .001$). Thus, by the grouping variable "Internet addiction", the respondents with high levels of addiction manifest depressive behavior. At the same time, such differences were not recorded on the "anxiety" scale. The comparison by the grouping variable "anxiety" (see Tabl. 5) showed two superiorities of the respondents (Group C) on the "Internet addiction" scale ($p < .050$) and the "depressiveness" scale ($p < .001$). Thus, the respondents (female and male junior athletes) with obvious signs of anxiety have high levels of Internet addiction and depressive behavior. In other words, we observe a close relationship between the studied variables in the total sample. By the grouping variable "depressiveness" (see Tabl. 6), the pattern of significant superiorities is similar to the previous one. The respondents (Group E) have superiority on the two scales – "Internet addiction" ($p < .001$) and "anxiety" ($p < .050$). Thus, the respondents (female and male junior athletes) with obvious symptoms of depressiveness have high levels of Internet addiction and anxious behavior. The comparison of two matrices based on gender differentiation is illustrative (see Tabl. 7). Notably, we identified the only significant difference in the comparison of correlation matrices: a correlation between anxiety and depressiveness was established in the females' subsample (Group 2), and such a correlation was not established in the males' subsample. We assume that this correlation can give an advantage to the females' subsample over the males' subsample in the parameters presented in Tabl. 3. However, this assumption undoubtedly requires confirmation. We can explain that the symptom complex of three dimensions – "Internet addiction", "anxiety", and "depressiveness" is a relevant indicator of the psycho-emotional stability of junior female and male athletes. Juniors' efficacy directly correlates with these parameters in all activities. It is advisable to study these phenomena in the educational process of sports institutions and implement the established scientific facts and patterns in the learning and training process at sports schools for children and youth.

Conclusions

It was substantiated that comparative research into the manifestations of junior athletes' Internet-dependent, anxious, and depressive behavior is a comparative confirmatory strategy aimed at identifying significant differences by the main grouping variables: "Internet addiction", "anxiety", "depressiveness", and "gender differentiation". It was underscored that comparing the manifestations of this behavior can enable us to establish important scientific facts and patterns, allowing for prevention and quality psychological support in the cases of addiction, anxiety, and depressiveness. It was found that by the grouping variable "gender differentiation", the subsample of male junior athletes (Group 1) significantly surpasses junior female athletes (Group 2) in the manifestations of "Internet addictions" and "anxiety" ($p < .010$). By the grouping variable "Internet addiction", the superiority of the group of respondents (Group A) was recorded on the "depressiveness" scale ($p < .001$). It was explained that the respondents with high levels of Internet addiction manifest depressive behavior. It was found that by the grouping variable "anxiety", the group of respondents (Group C) has two superiorities on the "Internet addiction" scale ($p < .050$) and the "depressiveness" scale ($p < .001$). We recorded a similar pattern by the grouping variable "depressiveness" – the superiority of the group of respondents (Group E) on the "Internet addiction" scale ($p < .001$) and the "anxiety" scale ($p < .050$). The comparison of correlation matrices allowed us to identify the only difference: a correlation between anxiety and depression was established in the females' subsample, and such a correlation was not observed in the males' subsample. It was empirically found and theoretically substantiated that the symptom complex of three dimensions, "Internet addiction", "anxiety", and "depressiveness" is a relevant indicator of the psycho-emotional stability of junior female and male athletes, and their efficacy directly correlates with these parameters in all activities. The aim was achieved, and the hypothesis was confirmed. It is advisable to implement the results in the learning and training process at sports schools for children and youth.

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