

Standardization of the Personality Potential Questionnaire for Athletes

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Abstract

Introduction. The procedure of standardization of the author's questionnaire "Personality Potential" for athletes was carried out for the first time. The five-factor structure of the personal potential is revealed: "inclusion" (consists of the indicators of the "Test of Resilience" and "Test of General Self-Efficacy", "meaningfulness" (combines the indicators of the "Test of Meaning-Life Orientations"), "internality" (includes the indicators of the test "Level of Subjective Control"), "independence" and "positivity" (consists of the scales of the self-actualization test). **Methods.** The standardized sample consisted of 531 people, members of Russian national teams in martial arts, speed-power, cyclic, complex-coordination and team sports. CNORM module was used to determine data norms; analysis of variance (ANOVA) was used to determine the number of standardized groups; confirmatory factor analysis was used to check the degree of consistency of the standardized questionnaire structure; Cronbach's Alpha test was used to assess the internal consistency of each of the scales separately and of the total scale. The sample was stratified with respect to gender and age. **Results.** As a result of the study, unified criteria for evaluating the results of diagnostic tests in relation to gender were determined, standardized groups were identified: "male", "female", "juniors (f)". To determine the norms of the male sample, the explanatory variable was used - the age of the athlete from the lower to the higher, for the female sample the grouping age variable was used, distinguishing the norms for the groups "female" and "juniors (f)". **Discussion.** Stratification of the sample allowed for three standardization groups. In the male sample, "juniors (m)" and "males" are combined

due to the lack of significant differences in the components and the overall measure of personality potential. With the exception of the "meaningfulness" component, the males' scores have slight variations in the lower range, a floor effect, while there is a ceiling effect for personality potential. In the female sample, the monotonic correlation of values by age is maintained. Regression modeling made it possible to calculate the T-score for each raw score in the studied groups. The standardization procedure of the questionnaire was performed as required.

Keywords

standardization of the questionnaire, personality potential, athletes, inclusion, meaningfulness, internality, independence, positivity

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Introduction

Nowadays in psychological practice there is an urgent need for standardized diagnostic tools that allow obtaining reliable empirical data. Most researchers prefer to modify methods, avoiding the standardization procedure, which, of course, significantly impoverishes the practical psychologist's toolkit.

Standardization includes formulation of instructions, description of the research procedure, rules of data processing with conversion of raw scores into normative ones, mathematical processing of research results, psychological interpretation of data (Baturin, Melnikova, 2010; Anastasi, 2009; Mitina, 2013; Kline, 1994; Shmelev, 2013).

The conducted analysis of the methods studying various manifestations of personal potential has revealed the fact that for its assessment it is necessary to carry out a whole set of diagnostic procedures, occupying a significant time period. Thus, standardization of the questionnaire "Personality potential" will optimize psychological diagnostics.

For realization of all stages of standardization it is necessary to have a clear understanding of the content of the concept of "personal potential".

The concept of "personal potential" is revealed in two contexts:

1. Through the notions of personal characteristics:
 - The degree of development of personality abilities and the possibility of their realization (Reznik, 2007);

- Natural talents that determine the degree of effectiveness (Feldman & Katzir, 1998), manifested in self-regulated learning (McCardle, Young & Baker, 2017);
- athlete's tasks, the realization of which is possible only with the development of certain personal qualities (Safonov, 2017);
- manifestations of individual capabilities (Lozhkin, Kolosov, 2014; Littlejohn & Young, 2019);
- as an assessment of suitability for certain activities (Kyllonen, 2008);
- striving to process information about a difficult situation in order to find the most effective ways to overcome it (Odintsova, 2015).

2. From the position of the resource approach:

- self-managed system of internal renewable resources of the personality, manifested in activity and aimed at obtaining a socially significant result (Markov, 2004);
- personal resource realized in certain situations (Koval, 2003);
- psychological resources and limitations arising on the way to success, which are caused by a combination of personality traits (Gorskaya, 2020; Stones & Baker, 2020);
- personal resources, their development and utilization at the stages of sports improvement and higher achievements (Bagadirova, 2019);
- adaptation resources, contributing to the preservation of performance efficiency in changing conditions and successful achievement of goals (Leontiev, 2011);
- dynamic resources that ensure high performance in sports activities regardless of external circumstances (Kamilov, 2016).

The construct of the standardized questionnaire consists of five components of personal potential, confirmed by the results of factor analysis (Kharitonova, Klimova, 2024):

1. The first component - "inclusion" - consists of the indicators of the "Test of Resilience" (Leontiev, Rasskazova, 2006) and the "Test of General Self-Efficacy" by R. Schwarzer and M. Yerusalem (adapted by W. Romek) (Schwarzer, Yerusalem, Romek, 1996):

- Resilience is a personal resource that allows athletes to achieve higher levels of skill (Malkin et al, 2019); coping skills to perform at high levels (Pires, Lima & Penna, 2019); contributes to the growth of personal athletic performance (Pavlova, 2020); is correlated with performance in individual sports (França, Codonhato & Vieira, 2020); success in sport activities (Bushmanova, Bushmanov, & Ulyanov, 2022; Pulmanovskaya, 2021); and resilience in different sports (Chacón Cuberos et al., 2016);
- Self-efficacy is the most predictively valid criterion that has a decisive influence on performance improvement (Bulyanko, 2022); determines readiness for constructive

coping with stressful situations (Kadyrova, 2017); is related to sports performance (Moritz et al, 2000; Castro et al., 2018); success of sports activity (Ezhova & Karpova, 2021); coping strategies and competitive anxiety (Porjavid et al., 2020); mental toughness (Ramolale, Malete & Ju, 2021).

2. The second component - "meaningfulness" - combined the indicators of the "Test of Meaning-Life Orientations" (Leontiev, 2006):

- meaning-life orientations is one of the factors influencing professional success (Bakunyaeva, 2014); interrelated with mastery (Tahtinen et al., 2019); with the general structure of life meaning (Ronkainen et al., 2020); influences the level of professional success (Sukhareva, Oboznov, 2019).

3. The third component - "internality" - includes indicators of the test "Level of subjective control" (Fetiskin, Kozlov, Manuilov, 2005):

- locus of control determines the effectiveness of self-analysis of the results of successes and failures (Ogorodova, 2013; Filipiak & Łubianka, 2020); competitive performance (Romanina, Kuzina, 2020; Piepiora, 2020; Ferreira et al., 2020); professional success (Gemonova, Kukurudziak, 2012).

4. The fourth and fifth components consist of scales of the self-actualization test (Gozman, Kroz, Latin, 1995):

- "Independence" consists of the scales: supportiveness, self-esteem, spontaneity, acceptance of aggression, behavioral flexibility and sensitivity;
- "Positivity": synergy, perceptions of human nature, value orientations and cognitive needs.

The mentioned components are manifested through the aspiration to achieve sports excellence through the maximum realization of their own natural talents (Tkachev & Zhilina, 2015); the process of overcoming extreme situations in sport (Andreev & Andreev, 2019); development and achievement of results (Dementieva, Kravchenko, 2016); inner life aspirations (Janke & Dickhäuser, 2019); anxiety level (Mirzeoğlu & Çetinkanat, 2005); performance (Gyömbér, Kovács & Lenart, 2016), self-actualization in sports activities (Nepopalov, Atamas, 2017).

Methods

The following methods were applied:

- to determine the norms of the standardized questionnaire - CNORM module implemented in the Jamovi program (Lenhard, Lenhard & Gary, 2018). CNORM can be characterized as a semi-parametric method. We make no assumptions about the distribution of raw scores, instead assuming that the raw score is the result of the interaction between the latent measurement ability and the applied test item set (Lenhard, Lenhard & Gary, 2019); to determine the granularity of the norm tables, statistical normalization models (Lenhard & Lenhard, 2021)

- to assess the fit of statistical models - RMSE and adjusted R^2 , which capture all kinds of global and local differences between observed and modeled data. For a good model fit, the RMSE should be below 10, the adjusted R^2 should be close to 0.99 (Lenhard et al., 2018);
- to determine the number of groups to be standardized, analysis of variance (ANOVA) with a posteriori comparison of groups in pairs, taking into account the Bonferroni correction;
- to check the degree of consistency of the structure of the standardized questionnaire - confirmatory factor analysis;
- to assess the internal consistency of each of the scales separately and of the total scale - Cronbach's Alpha.

Sample

The sample consisted of 531 people, members of Russian national teams in different sports (martial arts, speed and strength, cyclic, complex-coordination and team sports).

The sample was stratified only by sex differences and age categories, juniors from 17 to 21 years old and adults from 22 to 40 years old, the detailed characteristics of the sample are presented in Table 1.

Table 1

Characterization of the sample of athletes

Group	Number (n)	Mean age (M)	Standard deviation (SD)	CMS	MS	MSIC	HMS
Juniors(m)	104	19,154	1,147	31	65	7	1
Juniors(f)	148	18,980	1,264	60	79	9	0
Men	126	27,762	4,757	6	53	48	19
Female	153	27,464	4,645	0	59	55	39
Total	531	-	-	97	256	119	59

Note: CMS - Candidate Master of Sports; MS - Master of Sports; MSIC - Master of Sports International Class; HMS - Honored Master of Sports.

Results

The primary processing of empirical data made it possible to determine mean values, standard deviations, minimum and maximum indices, asymmetries, excesses for all the studied indicators (Table 2).

Table 2
Results of primary mathematical processing of data

Scales	Average	St. Deviation	Min.	Max.	Asymmetry	Excess
Inclusion	44,527	5,259	27	56	-0,491	0,263
Meaningfulness	28,401	3,543	17	35	-0,777	0,466
Independence	27,126	3,852	14	35	-0,554	-0,035
Positivity	23,793	4,076	12	34	-0,137	-0,195
Internality	27,667	3,368	13	35	-0,360	0,485
Personality potential	151,514	13,588	111	188	-0,221	0,252

Confirmatory factor analysis fit index results obtained: $\chi^2 = 497.821$; $df = 311$; $p < 0.001$; CFI = 0.906; SRMR = 0.043; RMSEA = 0.034, which confirms the acceptable fit of the model to the empirical data and the highlighted five-factor structure of the questionnaire.

The Cronbach's Alpha criterion scores for the "meaningfulness", "independence", "positivity" and "internalizing" scales lie between 0.438 and 0.487, indicating low consistency. For the "inclusion" scale, the score is 0.728 and the total scale is 0.781, showing good consistency of all items.

Analysis of variance (ANOVA) with posterior comparison of groups in pairs with Bonferroni correction:

- For the entire study sample: "inclusion" $F(3, 527) = 8.292$, $p < 0.001$; "meaningfulness" $F(3, 527) = 3.2921$, $p < 0.05$; "independence" $F(3, 527) = 4.125$, $p < 0.01$; "positivity" $F(3, 527) = 11.205$, $p < 0.001$; "internalization" $F(3, 527) = 0.944$, $p = 0.419$; "personality potential" $F(3, 527) = 9.619$, $p < 0.001$. Thus, statistically significant differences between the groups were found in all components except "internality";
- by gender, there are differences between male and female groups in the components of "inclusion" ($F(1, 527) = 17.427$, $p < 0.001$, $\eta^2 = 0.032$; $t(527) = 4.175$, $p < 0.001$, $d = 0.367$), "positivity" ($F(1, 527) = 29.501$, $p < 0.001$, $\eta^2 = 0.052$; $t(527) = 5.431$, $p < 0.001$, $d = 0.477$), "personality potential" ($F(1, 527) = 19.446$, $p < 0.001$, $\eta^2 = 0.035$; $t(527) = 4.432$, $p < 0.001$, $d = 0.389$);

- in the groups "juniors (f)" and "female" there are differences in the components "meaningfulness" $t(527) = 2.962, p < 0.05, d = 0.337$; "independence" $t(527) = 3.00, p < 0.05, d = 0.346$ and in "personality potential" $t(527) = 3.061, p < 0.01, d = 0.353$. There are no significant differences in the components "inclusion", "internalization" and "positivity";
- between the groups "juniors (m)" and "male" there are no significant differences in the components and the general indicator of personal potential.

Based on the results of the comparison of empirical data, it was decided to combine "juniors(m)" and "males" into one group, thus in further analysis the groups used are males, juniors (f), females (Table 3).

Table 3

Comparative results of the data obtained during mathematical processing (mean, standard deviation, confidence interval)

Scales	Male n = 230 mean, (standard deviation) [CI].	Juniors(f) n = 148 mean, (standard deviation) [CI]	Female n = 153 mean, (standard deviation) [CI]
Inclusion	45,604 (5,256) [44,925; 46,284]	42,926 (5,277) [42,074; 43,776]	44,458 (4,861) [43,687; 45,228]
Meaningfulness	28,578 (3,570) [28,117; 29,040]	27,662 (3,885) [27,036; 28,288]	28,850 (3,030) [28,370; 29,330]
Independence	27,474 (3,918) [26,968; 27,980]	26,189 (3,773) [25,581; 27,797]	27,510 (3,696) [26,924; 28,095]
Positivity	24,835 (4,059) [24,310; 25,359]	22,655 (3,924) [22,023; 23,288]	23,327 (3,883) [22,712; 23,942]
Internality	27,930 (3,438) [27,486; 28,375]	27,480 (3,092) [26,982; 27,978]	27,451 (3,509) [26,895; 28,007]
Personality potential	154,422 (13,522) [152,674; 156,169]	146,912 (13,229) [144,781; 149,043]	151,595 (12,870) [149,556; 153,634]

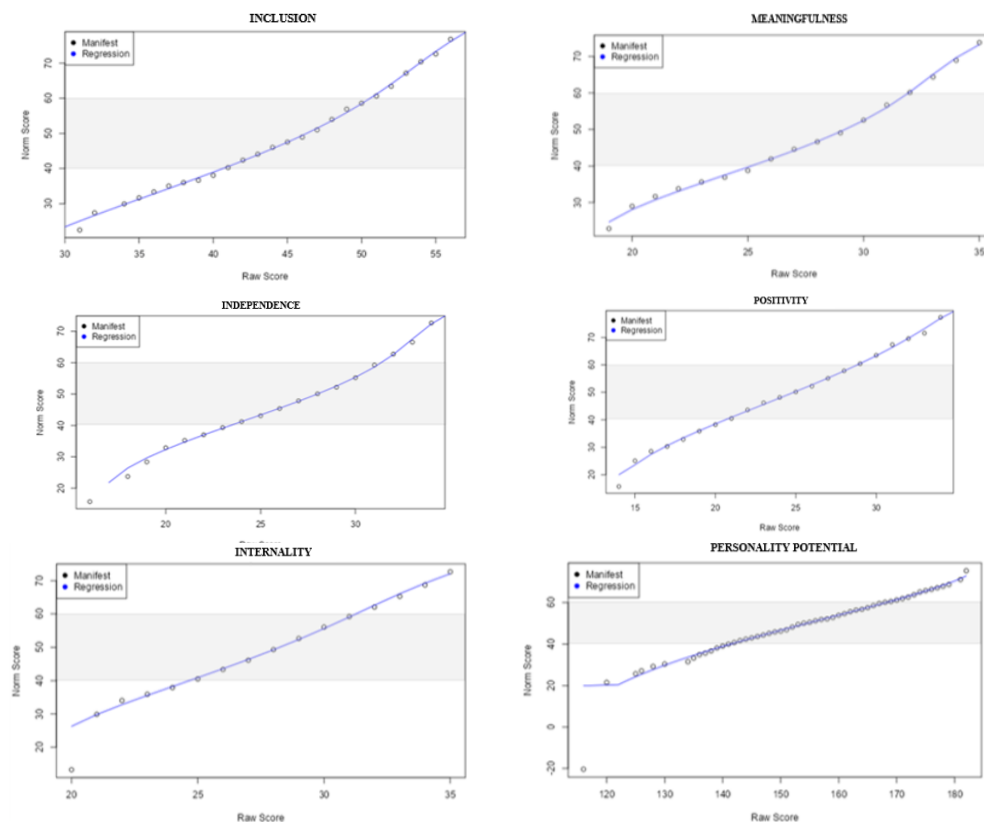
The component "inclusion" between males and juniors, the component "positivity" between males and juniors with females, "personality potential" between males and juniors and between juniors and females do not overlap with respect to the confidence interval, which is further evidence of significant differences in the studied indicators.

Continuous norming for the male sample

In order to develop norms for the male sample, the explanatory variable, age of the athlete, was used. Figure 1 presents a graphical visualization of the model fit between predicted and observed values.

Figure 1

Observed (raw) and predicted (T-score) norms



Note: Norms in T-scores are highlighted in gray.

When graphing the data with a good model fit, all observed variables are as close to the regression line as possible, and deviations in the extremely upper and lower ranges are indicative of floor or ceiling effects (Gary, Lenhard & Lenhard, 2021).

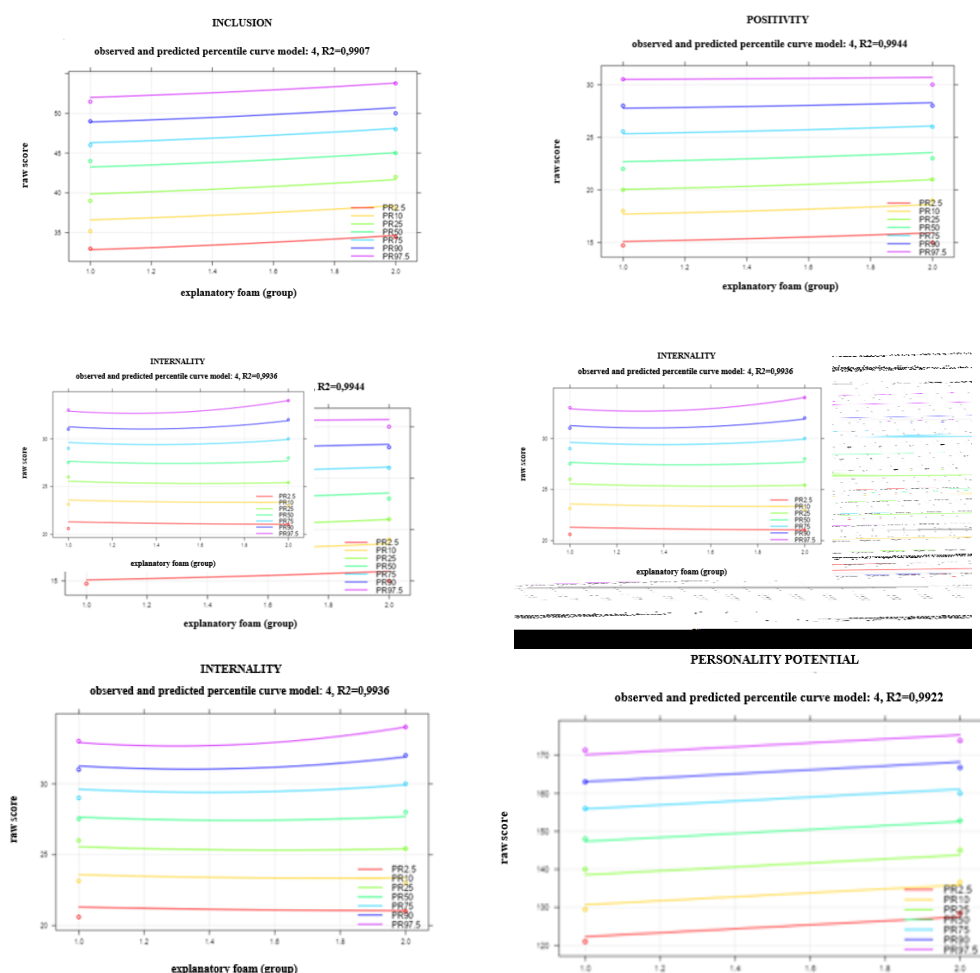
For the component "inclusion" RMSE: 0.257, $R^{(2)}_{adj} = 0.997$, "meaningfulness" RMSE: 0.188, $R^{(2)}_{adj} = 0.997$, "independence" RMSE: 0.136, $R^{(2)}_{adj} = 0.999$, "positivity" RMSE: 0.154, $R^{(2)}_{adj} = 0.998$, "internalizing" RMSE: 0.156, $R^{(2)}_{adj} = 0.998$, "personality potential" RMSE: 0.684, $R^{(2)}_{adj} = 0.997$.

Regression modeling allowed us to calculate each raw score with a corresponding T-score based on regression (Appendix 1).

Continuous normalization for the female sample

The grouping age variable was used to obtain norms for the female sample (Figure 2).

Figure 2
Observed and predicted percentile curves



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The absence of intersections of percentile curves, means that the monotonic relationship between normal scores and raw scores at certain age levels is not broken (Lenhard, Lenhard & Gary, 2019).

Visual analysis of the percentile curve plots revealed only a small deviation between observed and predicted raw scores, consistent with high correlation and small standard error of mean. The use of k predictors in the regression analysis, $k = 4$, provided a sufficient normalizing model, with simultaneously smoothed percentile curves and eliminated sampling error variance.

For the "inclusion" component, the RMSE was 0.497, and $R^2 = 0.991$, "meaningfulness" RMSE = 0.270, and $R^2 = 0.994$, "independence" RMSE = 0.317, and $R^2 = 0.992$, "positivity" RMSE = 0.269, $R^2 = 0.994$, "internality" RMSE = 0.264, $R^2 = 0.994$, personality potential RMSE = 1.115, $R^2 = 0.992$.

Regression modeling allowed us to calculate a different T-score for each raw score (Appendix 2).

Table 4 presents the norms of the scales for the male sample and Table 5 for the female sample.

Table 4

Norms for assessing the expression of indicators of the scales of the questionnaire "Personal Potential" (male)

	Weakly expressed		Average (norm)		Strongly expressed	
Inclusion	40 and below		41-50		51 and above	
Meaningfulness	25 and below		26-31		32 and above	
Independence	23 and below		24-31		32 and above	
Positivity	20 and below		21-28		29 and above	
Internality	24 and below		25-31		32 and above	
<u>T-score</u>						
	20 - 39		40 - 59		60-80	
	<u>Low</u>	<u>Below average</u>	<u>Average</u>	<u>Above average</u>	<u>High</u>	
Personality potential	128 and below	129-141	142-167	168-179	180 and above	
<u>T-score</u>						
	20-29	30-39	40-59	60-69	70-80	

Table 5
Norms for assessing the expression of indicators of the scales of the questionnaire "Personality potential" (Female)

	Weakly expressed		Medium (normal)		Strongly expressed	
	Juniors(f)	female	Juniors(f)	female	Juniors(f)	female
Inclusion	38-low	39-low	39-47	40-49	48-higher 50-higher	
Meaningfulness	23-low	25-low	24-31	26-31	32-up	32-up
Independence	22-lower	24-lower	23-30	25-31	31-higher 32-higher	
Positivity	18-lower	19-lower	19-26	20-27	27-higher 28-higher	
Internality	24-under	24-under	25-30	25-30	31-higher 31-higher	
<u>T-score</u>						
	20 - 39		40 - 59		60 - 80	
<u>Indicators of personal potential</u>						
	<u>low</u>	<u>below average</u>	<u>average</u>	<u>above average</u>	<u>high</u>	
Juniors(f)	121 and below	122-134	135-159	160-170	171 and above	
Female	127 and below	128-139	140-164	165-175	176 and above	
<u>T-score</u>						
	20-29	30-39	40-59	60-69	70-80	

Discussion

We consider it important to note that we implemented an increase in the sample size for the standardization of the questionnaire in contrast to its size for the development and initial testing of the methodology (Kharitonova, Klimova, 2024). The results of the primary mathematical processing of the data showed small differences in psychometric characteristics according to the results of confirmatory factor analysis and reliability of the questionnaire scales, but confirmed the acceptable correspondence of the model to the empirical data and the five-factor structure of the questionnaire.

Stratification of the sample by sex differences and age categories allowed us to identify three standardization groups, and we singled out only one group among the male sample, since no significant differences were found between the groups "juniors (m)" and "male" in terms of components and the general indicator of personality potential. According to the authors (Baturin, Melnikova, 2010) stratification is chosen depending on the content and practical purpose of the test, so the final allocation of those groups does not contradict the logic of the study.

When analyzing the obtained empirical data, we used the statistical package of continuous normalization CNorm, since the modeling is based on the full set of data, which requires, from our point of view, the use of methods of increased statistical power.

Our analysis of the presented charts on the male sample revealed only minor deviations between the observed scores and the regression line, in accordance with a high coefficient of determination and a small mean square error (Gary, Lenhard & Lenhard, 2021). Except for the meaningfulness component, all scores have small deviations in the lower range, a floor effect, and a ceiling effect is also observed for personality potential. This effect could have been caused by combining "juniors" and "males" into one group, which is characterized by a larger age range and skill level of the athletes.

According to the graph, there are only small deviations between observed and predicted values in the female sample, which can be interpreted as a first indication of a good model fit (Lenhard, Lenhard & Gary, 2019). The monotonic relationship between these values at certain age levels is not disturbed.

The resulting models adequately represent the maximum effect of the standardized questionnaire on the scales and the total scale where baseline scores are not exceeded.

Conclusions

The procedure of standardization of the questionnaire "Personality Potential" for athletes that we have carried out allowed us to:

1. to identify standardized groups: male, female, juniors(f);
2. to define uniform criteria for evaluating the results of diagnostic tests in relation to gender, and for the female sample we managed to identify norms for the subgroups "juniors (f)" and "female";
3. calculate for each raw score a corresponding T-score based on modeling of diagnostic results using the CNORM module;

Thus, the conducted research allowed us to compile tables of conversion of raw scores into T-scores for use in the practical activity of sports psychologists.

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Appendix 1

Table of conversion to T-scores. Male

Raw score	INCL (T-point)	MEAN (T-point)	INDEP (T-point)	POSIT (T-score)	INT (T-point)	Raw score	PP (T-score)	Raw score	PP (T-score)
12						114		160	53,9
13						115		161	54,7
14				20		116		162	55,4
15				23,6		117		163	56,2
16		20	20	27,4		118	20	164	56,9
17		22,3	21,7	30,5		119	20	165	57,7
18		24,6	26,4	33,3	21,5	120	21,1	166	58,4
19		26,8	29,6	36	24,6	121	22,2	167	59,2
20		29	32,3	38,4	27,5	122	23,3	168	60
21		31,1	34,7	40,9	30,3	123	24,3	169	60,8
22		33,2	36,9	43,2	32,9	124	25,3	170	61,6
23		35,3	39,1	45,5	35,6	125	26,3	171	62,4

Raw score	INCL (T-point)	MEAN (T-point)	INDEP (T-point)	POSIT (T-score)	INT (T-point)	Raw score	PP (T-score)	Raw score	PP (T-score)
24		37,4	41,2	47,9	38,2	126	27,3	172	63,2
25		39,6	43,3	50,3	40,9	127	28,2	173	64
26		41,9	45,4	52,7	43,6	128	29,1	174	64,8
27		44,3	47,7	55,1	46,5	129	30	175	65,7
28	20	46,8	50	57,7	49,4	130	30,9	176	66,6
29	21,6	49,5	52,5	60,4	52,4	131	31,8	177	67,5
30	23,3	52,6	55,3	63,3	55,6	132	32,6	178	68,4
31	25	56	58,6	66,3	58,9	133	33,5	179	69,4
32	26,6	60	62,6	69,6	62,4	134	34,3	180	70,4
33	28,2	64,6	67,5	73,1	65,8	135	35,1	181	71,4
34	29,7	69,4	72,3	76,9	69,2	136	35,9	182	72,5
35	31,2	73,5	75,8	80	72,2	137	36,7	183	73,6
36	32,7	76,8	78,3		75	138	37,5	184	74,9
37	34,3				77,5	139	38,3	185	76,2
38	35,8					140	39,1	186	77,7
39	37,3					141	39,9	187	
40	38,9					142	40,6		
41	40,5					143	41,4		
42	42,1					144	42,1		
43	43,8					145	42,9		
44	45,6					146	43,6		
45	47,4					147	44,4		
46	49,4					148	45,1		
47	51,4					149	45,9		
48	53,6					150	46,6		
49	55,9					151	47,3		
50	58,4					152	48,1		
51	61,1					153	48,8		
52	64					154	49,5		
53	67,1					155	50,3		
54	70,2					156	51		
55	73,3					157	51,7		
56	76,1					158	52,5		
57	78,7					159	53,2		

Appendix 2

Table of conversion to T-scores. Female

raw scores	INCL (T-point)		MEAN (T-point)		INDEP (T-point)		POSIT (T-score)		INT (T-point)		Personality potential (T-score)					
	jun	fem	jun	fem	jun	fem	jun	fem	jun	fem	raw scores	jun	fem	raw scores	jun	fem
12											112	21		157	57,6	53,4
13							24,9	23,1			113	22		158	58,4	54,2
14							27,5	25,5			114	23		159	59,3	55
15							30,1	28,0			115	23,9	20	160	60,1	55,8
16							32,7	30,5			116	24,9	20	161	61	55,6
17			23,7		24,8	22,3	35,3	33,1			117	25,8	20,8	162	61,9	57,5
18			26,3		27,9	25	37,9	35,6	20,9	21,5	118	26,7	21,8	163	62,7	58,3
19			28,7	20	30,8	27,7	40,5	38,1	23,7	24,4	119	27,5	22,8	164	63,6	59,1
20			31,1	23,3	33,5	30,2	43,1	40,7	26,6	27,3	120	28,4	23,7	165	64,5	60
21			33,4	26,5	36,2	32,7	45,7	43,3	29,5	30,2	121	29,3	24,7	166	65,5	60,8
22			35,7	29,5	38,8	35,1	48,2	45,9	32,4	33,2	122	30,1	25,6	167	66,4	61,7
23			38	32,3	41,4	37,5	50,8	48,5	35,4	36,1	123	30,9	26,5	168	67,4	62,6
24			40,2	35,1	43,9	39,9	53,3	51,1	38,4	39	124	31,8	27,4	169	68,4	63,5
25			42,5	37,8	46,5	42,3	55,9	53,8	41,5	42	125	32,6	28,2	170	69,4	64,4
26			44,9	40,6	49	44,8	58,4	56,5	44,6	44,9	126	33,4	29,1	171	70,5	65,3
27			47,2	43,3	51,6	47,3	60,9	59,2	47,8	47,9	127	34,2	29,9	172	71,6	66,2
28	20,9		49,7	46,2	54,2	49,9	63,4	62	51,1	50,9	128	35	30,8	173	72,7	67,2
29	23	20	52,3	49,1	56,9	52,7	65,9	64,8	54,5	53,9	129	35,8	31,6	174	73,9	68,2
30	25	21,3	55	52,3	59,7	55,7	68,3	67,6	58,1	56,9	130	36,6	32,4	175	75,1	69,2
31	26,9	23,4	58	55,8	62,6	59	70,8	70,4	61,8	60	131	37,4	33,2	176	76,4	70,3
32	28,8	25,4	61,5	60	65,7	63	73,2	73,3	65,7	63,1	132	38,2	34	177	77,8	71,4
33	30,6	27,3	65,9	66	69,1	68,5			70	66,3	133	38,9	34,8	178	79,3	72,5
34	32,4	29,1	75,1	71,8	73	75,1			74,7	69,6	134	39,7	35,6	179	80	73,7
35	34,2	31,	75,1	71,8					80	72,9	135	40,5	36,4	180		74,9
36	36	32,8									136	41,2	37,2	181		76,2
37	37,9	34,6									137	42	38	182		77,5
38	39,7	36,4									138	42,8	38,8	183		79
39	41,5	38,2									139	43,5	39,6	184		80
40	43,4	40,1									140	44,3	40,3	185		80
41	45,4	41,9									141	45,1	41,1	186		
42	47,4	43,8									142	45,8	41,9	187		
43	49,4	45,8									143	46,6	42,6			

44	51,6	47,8									144	47,4	43,4			
45	53,7	49,9									145	48,1	44,2			
46	56	52,									146	48,9	44,9			
47	58,3	54,2									147	49,7	45,7			
48	60,6	56,5									148	50,5	46,5			
49	63	58,8									149	51,2	47,2			
50	65,3	61,1									150	52	48			
51	67,5	63,4									151	52,8	48,8			
52	69,5	65,7									152	53,6	49,5			
53	71,5	67,9									153	54,4	50,3			
54	73,3	69,9									154	55,2	51,1			
55	74,9	71,8									155	56	51,9			
56	76,4	73,6									156	56,8	52,6			

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Conflict of interest information

The authors declare no conflicts of interest.