

ISSN: 1814-2052  
ISSN (online): 2311-7273

**ПСИХОЛОГИЧЕСКАЯ НАУКА  
И ОБРАЗОВАНИЕ**

---

**PSYCHOLOGICAL SCIENCE  
AND EDUCATION**

№ **4**

**2022**



# **ПСИХОЛОГИЧЕСКАЯ НАУКА И ОБРАЗОВАНИЕ**

**2022 • Том 27 • № 4**

# **PSYCHOLOGICAL SCIENCE AND EDUCATION**

Московский государственный психолого-педагогический университет  
Психологический институт Российской академии образования

---

Moscow State University of Psychology & Education  
Psychological Institute of the Russian Academy of Education



# Contents

---

---

## *Developmental Psychology*

<b><i>Donskova E.S.</i></b> FEATURES OF FRUSTRATION BEHAVIOR IN LEFT-HANDED CHILDREN OF PRIMARY SCHOOL AGE .....	5
<b><i>Bondarenko I.N., Tsyganov I.Yu., Burmistrova-Savenkova A.V.</i></b> INDIVIDUAL AND TYPOLOGICAL FEATURES OF RELATIONSHIP BETWEEN CONSCIOUS SELF-REGULATION, PSYCHOLOGICAL WELL-BEING, AND ACADEMIC PERFORMANCE IN FIFTH-GRADE PUPILS .....	15
<b><i>Isaeva O.M., Volkova E.N., Akimova A.Yu.</i></b> FACTORS OF PSYCHOLOGICAL WELL-BEING IN RUSSIAN YOUTH .....	24
<b><i>Krylova S.G., Vodyakha Yu.E.</i></b> ATTRIBUTING WEIGHT TO VIRTUAL OBJECTS IN PRESCHOOLERS .....	36
<b><i>Atli S., Gunuc S.</i></b> COMPARISON OF PARENTAL ATTITUDES BEFORE AND DURING THE COVID-19 PANDEMIC .....	46

---

## *Educational Psychology*

<b><i>Ulybina E.V., Tokareva A.A.</i></b> THE CONNECTION OF BELIEF IN A JUST WORLD WITH THE ATTITUDE TO ACADEMIC DISHONESTY AMONG SCHOOLCHILDREN WITH HIGH AND LOW LOYALTY TO CHEATING .....	59
<b><i>Dorfman L.Ya., Kalugin A.Yu.</i></b> AN INDIVIDUAL-INTELLECTUAL MODEL OF STUDENTS' ACADEMIC ACHIEVEMENT (BASED ON HUMANITARIAN SPECIALIZATIONS) .....	68
<b><i>Antonova N.A., Eritsyayn K.Yu., Kazantseva T.V., Dubrovsky R.G.</i></b> BARRIERS AND FACILITATORS TO SEEKING PSYCHOLOGICAL ASSISTANCE IN SCHOOL EDUCATION SYSTEM .....	77
<b><i>Ulyanina O.A., Gayazova L.A., Ermolaeva A.V., Fayzullina K.A.</i></b> THE CURRENT STATE OF EMERGENCY PSYCHOLOGICAL ASSISTANCE IN THE EDUCATION SYSTEM .....	88

---

## *Scientific life*

<b><i>Klochko E.Yu., Rubtsov V.V.</i></b> THE RESULTS OF THE FIRST HALF OF THE IMPLEMENTATION OF INTERDEPARTMENTAL COMPREHENSIVE PLANS ON THE ACCESSIBILITY OF ALL LEVELS OF EDUCATION, RECREATION, CAREER GUIDANCE AND EMPLOYMENT FOR PEOPLE WITH DISABILITIES AND DISORDERS .....	100
---	-----

---

## Психология развития

<b>Донскова Е.С.</b> ОСОБЕННОСТИ ФРУСТРАЦИОННОГО ПОВЕДЕНИЯ ЛЕВОРУКИХ ДЕТЕЙ МЛАДШЕГО ШКОЛЬНОГО ВОЗРАСТА .....	5
<b>Бондаренко И.Н., Цыганов И.Ю., Бурмистрова-Савенкова А.В.</b> ИНДИВИДУАЛЬНО-ТИПОЛОГИЧЕСКИЕ ОСОБЕННОСТИ ВЗАИМОСВЯЗИ ОСОЗНАННОЙ САМОРЕГУЛЯЦИИ, ПСИХОЛОГИЧЕСКОГО БЛАГОПОЛУЧИЯ И АКАДЕМИЧЕСКОЙ УСПЕВАЕМОСТИ УЧАЩИХСЯ ПЯТЫХ КЛАССОВ .....	15
<b>Исаева О.М., Акимова А.Ю., Волкова Е.Н.</b> ФАКТОРЫ ПСИХОЛОГИЧЕСКОГО БЛАГОПОЛУЧИЯ РОССИЙСКОЙ МОЛОДЕЖИ .....	24
<b>Крылова С.Г., Водяха Ю.Е.</b> ПРИПИСЫВАНИЕ ВЕСА ВИРТУАЛЬНЫМ ОБЪЕКТАМ ДЕТЬМИ ДОШКОЛЬНОГО ВОЗРАСТА .....	36
<b>Атли С., Гюнук С.</b> СРАВНЕНИЕ РОДИТЕЛЬСКИХ УСТАНОВОК ДО И ПОСЛЕ ПАНДЕМИИ COVID-19 .....	46

---

## Психология образования

<b>Улыбина Е.В., Токарева А.А.</b> СВЯЗЬ ВЕРЫ В СПРАВЕДЛИВЫЙ МИР С ОТНОШЕНИЕМ К АКАДЕМИЧЕСКОЙ НЕЧЕСТНОСТИ У ШКОЛЬНИКОВ С ВЫСОКОЙ И НИЗКОЙ ЛОЯЛЬНОСТЬЮ К ЧИТЕРСТВУ .....	59
<b>Дорфман Л.Я., Калугин А.Ю.</b> ИНДИВИДУАЛЬНО-ИНТЕЛЛЕКТУАЛЬНАЯ МОДЕЛЬ АКАДЕМИЧЕСКИХ ДОСТИЖЕНИЙ СТУДЕНТОВ (НА МАТЕРИАЛЕ ГУМАНИТАРНЫХ СПЕЦИАЛЬНОСТЕЙ) .....	68
<b>Антонова Н.А., Ерицян К.Ю., Казанцева Т.В., Дубровский Р.Г.</b> БАРЬЕРЫ И ФАСИЛИТАТОРЫ ОБРАЩАЕМОСТИ ЗА ПСИХОЛОГИЧЕСКОЙ ПОМОЩЬЮ В СИСТЕМЕ ОБЩЕГО ОБРАЗОВАНИЯ .....	77
<b>Ульянина О.А., Гаязова Л.А., Ермолаева А.В., Файзуллина К.А.</b> ЭКСТРЕННАЯ ПСИХОЛОГИЧЕСКАЯ ПОМОЩЬ В СИСТЕМЕ ОБРАЗОВАНИЯ: СОВРЕМЕННОЕ СОСТОЯНИЕ .....	88

---

## Научная жизнь

<b>Клочко Е.Ю., Рубцов В.В.</b> ИТОГИ ПЕРВОГО ПОЛУГОДИЯ РЕАЛИЗАЦИИ МЕЖВЕДОМСТВЕННЫХ КОМПЛЕКСНЫХ ПЛАНОВ ПО ДОСТУПНОСТИ ВСЕХ УРОВНЕЙ ОБРАЗОВАНИЯ, ОТДЫХА, ПРОФОРИЕНТАЦИИ И ЗАНЯТОСТИ ДЛЯ ЛИЦ С ИНВАЛИДНОСТЬЮ И ОГРАНИЧЕННЫМИ ВОЗМОЖНОСТЯМИ ЗДОРОВЬЯ .....	100
---	-----

Dear readers!

A new issue of the journal "Psychological Science and Education" (No. 4 — 2022) has been published. The issue consists of three rubrics: "Developmental Psychology", "Educational Psychology" and "Scientific Life".

In the rubric "Developmental Psychology" the authors consider the topics of psychological well-being, resources and limitations of high level school academic performance; attributing weight to virtual objects by preschoolers; changing parental attitudes and beliefs during the pandemic.

In the rubric "Educational Psychology" the authors raise the topics of belief in a just world and its connection with academic dishonesty; students' academic achievements model; psychological assistance in the education system, barriers and facilitators of seeking for psychological assistance; emergency and crisis psychological assistance.

In the rubric "Scientific life" the reader can be introduced with the materials of the conference dedicated to the results of the first half of the implementation of the Interdepartmental Comprehensive Plan to increase the accessibility of secondary vocational and higher education for disabled people and people with disorders. The conference took place on July 29, 2022 in Moscow (Russia).

We hope that readers of the journal will find the materials that suit their interests in the new issue of the journal "Psychological Science and Education".

*The Editorial Board*

# Features of Frustration Behavior in Left-Handed Children of Primary School Age

**Ekaterina S. Donskova**

Kyrgyz-Russian Slavic University, Bishkek, Kyrgyzstan

ORCID: <https://orcid.org/0000-0002-2990-4076>, e-mail: [sunnysideofthirty@yandex.ru](mailto:sunnysideofthirty@yandex.ru)

Changes in the social situation of development of primary school students are accompanied by frustrating situations. However, there is a lack of comparative studies of frustration behavior of left-handed children is emphasized. Purpose of the work: to compare the features of the frustration behavior of left-handed and right-handed junior schoolchildren. Research hypotheses: H1: between left-handed and right-handed younger students there are differences in the nature of reactions to a frustrating situation; H2: left-handed younger students show higher levels of anxiety and fear. 124 elementary school students were compared: with the leading left hand (n=62) and the leading right hand (n=62). 70 are boys and 54 are girls. The following methods were used: “S. Rosenzweig test. The technique of pictorial frustration. Children’s version”; “Self-assessment test. Characteristics of emotionality”; “Children’s version of the scale of apparent anxiety”; “Questionnaire for identifying fears”. Hypotheses were tested for statistically significant differences using the parametric Student’s t-test and the nonparametric Mann-Whitney U-test. The effect size is calculated using Cohen’s d value. The influence of independent factors (gender and leading hand) on the studied indicators was checked using two-way ANOVA. It was shown that in a situation of frustration in left-handed children, more often than in right-handed children, there is a tendency to fixation on an obstacle ( $p \leq 0.01$ ), and extrapunitive reactions ( $p \leq 0.05$ ). The results of the study are focused on practical application in the field of education and can be used in the development of programs of psychological and pedagogical support for left-handed children.

**Keywords:** frustrating situation, left-handed primary schoolchild, fixation on an obstacle, extrapunitive reactions, anxiety, fear.

**Acknowledgements.** The author is grateful to L.V. Khatamova, psychologist of the Ecological and Economic Lyceum #65, for her assistance in data collection.

**For citation:** Donskova E.S. Features of Frustration Behavior in Left-Handed Children of Primary School Age. *Psikhologicheskaya nauka i obrazovanie = Psychological Science and Education*, 2022. Vol. 27, no. 4, pp. 5—14. DOI: <https://doi.org/10.17759/pse.2022270401> (In Russ.).

# Особенности фрустрационного поведения леворуких детей младшего школьного возраста

**Донскова Е.С.**

Кыргызско-Российский Славянский университет, г. Бишкек, Кыргызстан

ORCID: <https://orcid.org/0000-0002-2990-4076>, e-mail: [sunnysideofthirty@yandex.ru](mailto:sunnysideofthirty@yandex.ru)

Отмечается, что изменения в социальной ситуации развития младших школьников сопровождаются фрустрирующими ситуациями. Подчеркивается дефицит сравнительных исследований фрустрационного поведения леворуких детей. Работа была посвящена тому, чтобы сравнить особенности фрустрационного поведения леворуких и праворуких младших школьников. В исследовании предполагалось следующее: H1: между леворукими и праворукими младшими школьниками существуют различия в характере реакций на фрустрирующую ситуацию; H2: леворукие младшие школьники демонстрируют более высокие показатели тревожности и страха. Сравнялись 124 ученика младших классов: с ведущей левой рукой ( $n=62$ ) и ведущей правой рукой ( $n=62$ ). Из них 70 мальчиков и 54 девочки. Для достижения поставленной цели были использованы: «Тест С. Розенцвейга. Методика рисуночной фрустрации. Детский вариант»; «Самооценочный тест "Характеристики эмоциональности"»; «Детский вариант шкалы явной тревожности»; «Опросник для выявления страхов». Гипотезы проверялись на статистически значимые различия с помощью параметрического t-критерия Стьюдента и непараметрического U-критерия Манна-Уитни. Размер эффекта рассчитан с помощью величины  $d$  Козна. Влияние независимых факторов (пола и ведущей руки) на исследуемые показатели проверялось с помощью двухфакторного дисперсионного анализа. Показано, что в ситуации фрустрации у леворуких детей чаще, чем у праворуких, наблюдаются склонность к фиксации на препятствии ( $p \leq 0,01$ ) и экстрапунитивные реакции ( $p \leq 0,05$ ). Результаты исследования ориентированы на практическое применение в сфере образования и могут быть использованы при разработке программ психолого-педагогического сопровождения леворуких детей.

**Ключевые слова:** фрустрирующая ситуация, леворукий младший школьник, фиксация на препятствии, экстрапунитивные реакции, тревожность, страх.

---

**Благодарности.** Автор благодарит за помощь в сборе данных для исследования психолога Эколого-экономического лица № 65 Л.В. Хатамову.

**Для цитаты:** Донскова Е.С. Особенности фрустрационного поведения леворуких детей младшего школьного возраста // Психологическая наука и образование. 2022. Том 27. № 4. С. 5—14. DOI: <https://doi.org/10.17759/pse.2022270401>

## Introduction

A child's life undergoes many changes at primary school age. The social context in which they are developing is changing,

the child is mastering new social roles and relationships, and their primary activity is shifting from play to education. Significant changes in the emotional life of the child are

generated as a result, often accompanied by psychological difficulties.

At this age, the child is facing a variety of challenging situations in all spheres of life that may bring negative emotional experiences. The main outcome of psychological stress is frustration. Often, children form unconstructive ways to overcome frustrating situations from which emotional distress arises [13; 20]. Frustration negatively affects the relationship and behavior of the child and reduces his performance at school.

The problem of frustration as an internal conflict was considered by such foreign scientists as Z. Freud, A. Freud, and K. Horney, and was considered as an external barrier to satisfying one's needs by S. Rosenzweig, N. Mayer, D. Dollard, N. Miller. The influence of frustration on behavior and self-regulation has been studied by R. Baron, D. Krech, K. Levin, and R. May.

Russian authors who considered this problem include B.G. Ananov, A.A. Barsov, V.N. Myasishchev, V.N. Tarabrina, G.F. Zarembo, L.N. Sobchik, M.V. Orshanskaya, N.N. Plotnikova, Yu.E. Kukina, and others.

Nevertheless, how the features behavior born of frustration in primary school students depends on the choice of dominant hand, has not been sufficiently investigated.

As of today, there is a large amount of data indicating functional differences in the brain activity of right-handed and left-handed people [14].

Foreign and Russian researchers who have studied the peculiarities of the thinking and behavior of left-handed people include M. Annette, N. Gerswind, G. Deitch, S. Jackson, J. Levy, K. McManus, S. Springer, M.M. Bezrukikh, V.L. Bianchi, N.N. Bragina, T.A. Dobrokhotova, V.A. Moskvina, E.A. Karavaeva, A.R. Luria, E.D. Khomsakaya, and others.

G.G. Arakelov, E.K. Schott and other scientists suggest that the lower emotional and stress resistance of left-handed people is associated with a certain way of orga-

nizing brain processes and with the stress response mechanism in the dominant right hemisphere [1; 18].

It has been found that left-handed children demonstrate a high level of anxiety and emotionality, increased excitability and sensitivity, self-doubt, difficulties in establishing contact with peers, tension and difficulty adapting to school. According to a study by E.S. Arbuzova, conducted on the basis of a survey of parents, left-handed children face difficulties at school and at home, retreat from difficult tasks, experience increased tension and fatigue and have a high level of anxiety [2].

The problem of left-handedness is also of great importance in sports [6]. This study considers the features of speech development and visual memory in left-handers [8]. This study also compares indicators of emotional impressionability in left-handers and right-handers [10].

Modern foreign authors study the features of the manifestation of left-handedness using the twin method, investigate the relationship of behavioral reactions and the functional asymmetry of the brain, and consider the particularities of teaching left-handed children at school [12; 16; 19].

New studies emphasize the need to re-train teachers in order to gain knowledge about the psychophysiology of children with developmental disabilities, including those with left-handedness [9].

These studies do not fully answer the questions of how left-handed children adapt to frustrating situations associated with the onset of school life. However, we can observe manifestations of increased emotional response arising from a negative emotional undercurrent in relation to peers, school workload, and teachers [4].

The study of this problem can increase the efficiency of educational work and aid in the search for means of solving certain pedagogical and psychological problems. Two factors attest to the relevance of this re-



search within the framework of pedagogical psychology. First, the need to determine the characteristics of the emotional response and behavior of left-handed primary school students experiencing a state of frustration. Second, the lack of accurate data or scientific interest regarding the features of the psychological difficulties left-handed children face in adapting and socializing themselves to the school system.

Thus, the *purpose of this study* was to compare the features of the behavior of left-handed and right-handed primary school students amidst frustration.

The results of previous studies allow us to suggest the following hypotheses:

H1: there are differences between the reactions to a frustrating situation exhibited by left-handed and right-handed primary school students;

H2: Left-handed primary school students show higher rates of anxiety and fear.

## Method

**The scheme of the study.** 124 primary school students from Bishkek took part in this study. Among these, 70 were boys and 54 were girls. The main criterion for the selection of respondents was their age — all of them were students of primary public and private schools. The groups were distributed according to what hand students use the most.

**Sampling in the study.** The group of left-handed primary school students consisted of 62 students. Among these, 40 were boys and 22 were girls. The group of right-handed primary school students also consisted of 62 students. Among these, 34 were boys and 28 were girls.

**Methods of study.** To diagnose frustrated behavior and the features of emotional response exhibited by primary school students in such a state, the following methods were chosen: The S. Rosenzweig test. The technique of pictorial frustration, children's version (modified by N.V. Tarabrina, 1984) [3]; The self-assessment test Character-

istics of Emotionality (E.P. Ilyin, 2001) [7]; The children's version of the scale of apparent anxiety (A. Castaneda, B. Mckendles, D. Palermo, adapted by A.M. Prikhodzhan, 1995) [11]; Questionnaire for identifying fears (A.I. Zakharov, 1995)" [5].

The statistical package IBM SPSS Statistics v.21 was used for statistical data processing.

## Results

When checking the distribution of scales using the Kolmogorov-Smirnov criterion, scales with a normal distribution were identified, tested for statistically significant differences using the parametric Student's t-test, while scales with an abnormal distribution were compared using the nonparametric Mann-Whitney U test.

The groups shown in the tables below have the following values:

group 1 — left-handed primary school students;

group 2 — right-handed primary school students.

Table 1 presents the descriptive statistical characteristics of those scales that are normally distributed for data systematization and quantitative description by means of basic statistical indicators.

Table 2 shows that the indicator "Fixation on an obstacle. OD" in the group of left-handed primary school students is higher than in the right-handed students group, where  $p=0.010$ , and Student's t-criterion is 2.618. We can conclude that there are statistically significant differences at the 1% significance level ( $p \leq 0.01$ ). At the same time, the effect size ( $d=0.47$ ) tends to the average (according to J. Cohen,  $d=0.5$  will correspond to the average effect size). It can be assumed that in a frustrating situation, left-handed children have an increased tendency to fixate on an obstacle, while all attention is turned on the source of frustration, causing negative emotional experiences, so students demonstrate stereotypical perception and thinking, capricious behavior.

Table 1

**Descriptive statistics of indicators of S. Rosenzweig’s pictorial frustration technique and A.I. Zakharov’s questionnaire to identify fears with a normal distribution among groups of left-handed and right-handed primary school children**

No	Indicators	Group	Average value	Median value	Variance	Standard deviation
1	Fixation on an obstacle. OD (S. Rosenzweig)	1	45.561	45.800	213.372	14.607
		2	38.174	41.700	280.280	16.741
2	Fixation on self-defense. ED (S. Rosenzweig)	1	45.159	41.700	176.119	13.271
		2	42.409	41.700	176.119	17.511
3	Extrapunitive reactions. E (S. Rosenzweig)	1	47.108	45.800	413.319	20.330
		2	39.183	37.500	379.548	19.481
4	Intropunitive reactions. I (S. Rosenzweig)	1	25.408	25	251.088	15.845
		2	27.954	29.2	220.448	14.847
5	Impunitive reactions. M (S. Rosenzweig)	1	27.748	25	220.750	14.857
		2	25.333	25	185.058	13.603
6	Fears (A.I. Zakharov)	1	18.016	20	33.458	5.784
		2	14.532	16	52.679	7.258

Table 2

**Comparison of average values of indicators of S. Rosenzweig’s pictorial among technique and A.I. Zakharov’s questionnaire to identify fears with a normal distribution for groups of left-handed and right-handed primary school children (Student’s t-test)**

No	Indicators	Group 1	Group 2	Student’s t-test	Significance p	Effect Size Cohen’s d
1	Fixation on an obstacle. OD (S. Rosenzweig)	45.561	38.174	2.618**	0.010	0.470
2	Fixation on self-defense. ED (S. Rosenzweig)	45.159	42.409	0.986	0.326	0.177
3	Extrapunitive reactions. E (S. Rosenzweig)	47.108	39.183	2.216*	0.029	0.397
4	Intropunitive reactions. I (S. Rosenzweig)	25.408	27.954	-0.923	0.358	-0.165
5	Impunitive reactions. M (S. Rosenzweig)	27.748	25.333	0.944	0.347	0.169
6	Fears (A. I. Zakharov)	18.016	14.532	2.956**	0.004	0.530

The indicator “Extrapunitive reactions. E” also reveals statistically significant differences between the experimental and control groups at a 5% significance level ( $p \leq 0.05$ ), where  $p = 0.029$ , and Student’s t-test is 2.216. The effect size ( $d = 0.397$ ) is between

low and average (according to J. Cohen,  $d < 0.2$  — low effect size,  $d = 0.5$  — average effect size). Consequently, in a frustrating situation, for left-handed primary school students, the frequency of extrapunitive reactions in the form of open censure or ac-

cusations towards external causes such as people or circumstances increases.

The “Fears” indicator reveals differences at the 1% significance level ( $p \leq 0.01$ ), where  $p = 0.004$ , and the Student’s t-test is 2.956. At the same time, the effect size ( $d = 0.53$ ) is higher than the average (according to J. Cohen,  $d = 0.5$  will correspond to the average effect size). Thus, we can conclude that the manifestation of the negative emotional process of fear is more characteristic for left-handed primary school students. Left-handed children are more likely to show anxiety and excitement in the form of an excited or depressed emotional state when experiencing real or imaginary danger than right-handed children.

Table 3 presents data demonstrating the significance of the differences in the data obtained during the study on the “Gender” factor and on the “Hand” factor. There are no significant differences in the “Gender” factor. As for the “Hand” factor, there are differences on the following scales: “Fixation on an obstacle. OD” at a 5% significance level ( $p = 0.038$ ), “Extrapunitive reactions.

E” at a 5% significance level ( $p = 0.015$ ), and the “Fears” scale at a 1% significance level ( $p = 0.004$ ), which does not contradict the conclusions made earlier about the presence of significant differences when comparing the average values of the scales using the Student’s t-test.

Table 4 presents the descriptive statistical characteristics of those scales that are abnormally distributed for data systematization and quantitative description by means of basic statistical indicators.

As seen from Table 5, there are statistically significant differences in the indicator “Negative influence of emotions on the effectiveness of activity and communication” at the 1% significance level ( $p \leq 0.01$ ), where  $p = 0.002$ , and Mann—Whitney U test is 1304.000. At the same time, the effect size ( $d = 0.577$ ) is higher than the average (according to J. Cohen,  $d = 0.5$  will correspond to the average effect size). Left-handed primary school students exhibit a highly negative influence of emotions on the effectiveness of their activities and communication. Consequently, amidst impactful emotional

Table 3

**Checking the influence of gender on indicators of S. Rosenzweig’s pictorial frustration technique and A.I. Zakharov’s questionnaire to identify fears with a normal distribution among groups of left-handed and right-handed primary school children (two-way analysis of variance)**

Factors	Indicators	Fixation on an obstacle. OD (S. Rosenzweig)	Fixation on self-defense. ED (S. Rosenzweig)	Extrapunitive reactions. E (S. Rosenzweig)	Intropunitive reactions. I (S. Rosenzweig)	Impunitive reactions. M (S. Rosenzweig)	Fears (A.I. Zakharov)
Gender	Type III Sums of Squares	9.795	352.974	971.300	189.750	699.333	141.209
	F	0.041	1.469	2.467	0.809	3.514	3.334
	Significance p	0.839	0.227	0.118	0.370	0.0632	0.070
Hand	Type III Sums of Squares	1037.912	403.812	2376.057	270.225	60.774	364.050
	F	4.359	1.681	6.036	1.152	0.305	8.596
	Significance p	0.038*	0.197	0.015*	0.285	0.581	0.004**

Table 4

**Descriptive statistics of indicators of the scales of E.P. Ilyin’s self-assessment test Characteristics of Emotionality and A.M. Prikhodzhan’s scale of apparent anxiety with an abnormal distribution among groups of left-handed and right-handed primary school children**

No	Indicators	Group	Average value	Median value	Variance	Standard deviation
1	Emotional excitability (E.P. Ilyin)	1	3.854	4.000	2.913	1.706
		2	3.467	4.000	4.285	2.070
2	Intensity of emotions (E.P. Ilyin)	1	4.806	5.000	4.289	2.071
		2	4.774	5.000	4.308	2.075
3	Duration of emotional experiences (E.P. Ilyin)	1	3.596	3.500	3.490	1.868
		2	4.177	4.000	2.541	1.594
4	Negative influence of emotions (E.P. Ilyin)	1	4.806	5.000	2.027	1.423
		2	3.967	4.000	2.195	1.481
5	Anxiety (A.M. Prikhodzhan)	1	8.435	9.000	3.167	1.779
		2	7.435	8.000	3.233	1.798

Table 5

**Comparison of average ranks of indicators of the scales of E.P. Ilyin’s self-assessment test Characteristics of Emotionality” and A.M. Prikhodzhan’s scale of apparent anxiety with an abnormal distribution among groups of left-handed and right-handed primary school children (Mann—Whitney U test)**

No	Indicators	Group 1	Group 2	Mann—Whitney U test	Significance p	Effect Size Cohen’s d
1	Emotional excitability (E.P. Ilyin)	65.98	59.02	1706.000	0.274	0.204
2	Intensity of emotions (E.P. Ilyin)	62.70	62.30	1909.500	0.950	0.015
3	Duration of emotional experiences (E.P. Ilyin)	58.19	68.81	1610.500	0.063	-0.334
4	Negative influence of emotions (E.P. Ilyin)	72.47	52.53	1304.000**	0.002	0.577
5	Anxiety (A.M. Prikhodzhan)	72.96	52.04	1273.500**	0.001	0.559

experiences, such emotions will most negatively influence the self-perception of left-handed children and their relationships with others.

It can also be concluded that there are statistically significant differences on the “Anxiety” scale at 1% significance level ( $p \leq 0.01$ ), where  $p = 0.001$ , and Mann—Whit-

ney U test is 1273,500. The effect size ( $d = 0.53$ ) is higher than the average ( $d = 0.5$  is the average effect size). Consequently, left-handed primary school students are more likely than right-handed ones to experience mental or somatic tension, manifested in fatigue, irritability, impatience, a sense of inner stiffness, or a tendency to experience bouts

of intense fear and anxiety, even during minor events.

### Discussion

The results obtained confirm the hypothesis that there are differences between the reactions of left-handed and right-handed primary school students toward failure and between their ways to get out of situations that hinder their activity or the satisfaction of their needs. For left-handed primary school students, the increase in such frustrating reactions as fixation on an obstacle and extrapunitive reactions is statistically significant. In frustrating situations, left-handed children will focus on the obstacle more than right-handed ones, that is, focus on the problem rather than on ways to solve it, showing rigidity and stereotypical thinking. Left-handed children have higher rates of extrapunitive reactions, which indicates low tolerance and emotional instability when facing frustration and a tendency to aggressive and accusatory actions towards other participants in a problematic situation.

In addition, statistically significant increases in anxiety and fear indicators were revealed, which emphasize the increased emotional response and negative emotional undercurrent characteristic of left-handed children during the period of adaptation to school life and a new social situation.

These features of the frustrated behavior displayed by left-handed primary school students may be associated with a certain way of organizing brain processes, functional, morphological and biochemical differences in brain activity in general, and at the time of reaction to stress in particular [14; 15; 17].

### References

1. Arakelov G.G., Shott E.K., Lysenko N.E. Osobennosti stressovoi reaktsii u pravshei i levshei [Features of the stress reaction in right-handers and left-handers]. *Vestnik Moskovskogo universiteta. Seriya 14. Psikhologiya* [Moscow University Psychology Bulletin], 2004, no. 2, pp. 3—21. (In Russ.).

A prolonged negative emotional state will cause primary school students to more frequently exhibit outwardly aggressive reactions in frustrating situations.

### Conclusion

There are differences in how right-handed and left-handed children react to situations that hinder activity or the satisfaction of their needs. Left-handed children are more likely than right-handed children to show the following reactions to problematic situations: aggressive and accusatory actions, fixation on the obstacle, and failure to solve the problem. They also demonstrate a higher level of anxiety and fear.

The differences found, although not pronounced, are quite real and, to a certain extent, quite tangible, and therefore should be taken into account when interacting with left-handed primary school students, particularly, when assessing their cognitive, emotional and behavioral indicators.

The results of the study are focused on practical application in the field of education, they can be useful for teachers and psychologists in developing programs for the psychological and pedagogical support of left-handed children, creating the necessary conditions conducive to social adaptation and maintaining psychological health, and for successful learning and development in the school environment. The data obtained concretize the already existing ideas about ways to overcome the difficulties that a child experiences at the beginning of school life, considering the specifics of the emotions and behavior of right-handed and left-handed primary school students exhibit in frustrating situations.

2. Arbuzova E.S. O mekhanizmax shkol'noi dezadaptatsii levorukikh detei po dannym anketirovaniya roditel'ei i metodakh ee korrektsii [On the mechanisms of school maladjustment of left-handed children according to the data of parents' questionnaires and methods for its correction]. *Izvestiya RGPU im. A.I. Gertsena* [Izvestia: Herzen

*University Journal of Humanities and Sciences*], 2008, no. 36(77), pp. 249—252. (In Russ.).

3. Dermanova I.B. Diagnostika emotsional'no-nravstvennogo razvitiya [Diagnostics of emotional and moral development]. St. Petersburg: Rech' Publ., 2002. 176 p. (In Russ.).

4. Donskova E.S. Issledovaniya emotsional'noi sfery mladshikh shkol'nikov [Studies of the emotional sphere of younger schoolchildren]. *Nauka, novye tekhnologii i innovatsii Kyrgyzstana* [Science, new technologies and innovations in Kyrgyzstan], 2019, no. 9, pp. 95—99. (In Russ.).

5. Zakharov A.I. Detskie nevrozy (psikhologicheskaya pomoshch' roditel'ei detyam) [Children's neuroses (psychological help of parents to children)]. St. Petersburg: Respeks Publ., 1995. 192 p. (In Russ.).

6. Ivanov V.D., Voloshina A.I. Levshi v sporte: Mezhpolutsharnaya asimmetriya i sport [Left-handers in sports: Interhemispheric asymmetry and sport]. *Aktual'nye problemy pedagogiki i psikhologii* [Actual problems of pedagogy and psychology], 2021. Vol. 2, no. 10, pp. 41—51. (In Russ.).

7. Il'in E.P. Emotsii i chuvstva [Emotions and feelings]. St. Petersburg: Piter Publ., 2001. 752 p. (In Russ.).

8. Kuprik K.S. Sravnitel'nyi analiz zritel'noi pamyati u levshoi i pravshoi [Comparative analysis of visual memory in left-handers and right-handers]. *Intellektual'nye resursy — regional'nomu razvitiyu* [Intellectual resources for regional development], 2021, no. 1, pp. 171—175. (In Russ.).

9. Loginova E.S., Bezrukikh M.M., Ivanov V.V., Orlov K.V. Znaniya uchitelei o psikhofiziologii detei s osobennostyami razvitiya (dети s SDVG, RAS, levorukiye i medlitel'nye deti) [Teachers' knowledge about the psychophysiology of children with developmental disabilities (children with ADHD, ASD, left-handed and sluggish children)]. *Novye issledovaniya* [New research], 2020, no. 4(64), pp. 46—73. (In Russ.).

10. Pershina K.V. Sravnitel'noe issledovanie temperamenta pravshoi i levshoi [Comparative study of the temperament of right-handers and left-handers]. *Vestnik eksperimental'nogo obrazovaniya* [Bulletin of experimental education], 2021, no. 1(26), pp. 12—22. (In Russ.).

### Литература

1. Аракелов Г.Г., Шотт Е.К., Лысенко Н.Е. Особенности стрессовой реакции у правой и левой // Вестник Московского университета. Серия 14. Психология. 2004. № 2. С. 3—21.

2. Арбузова Е.С. О механизмах школьной дезадаптации леворуких детей по данным анкетирования родителей и методах ее коррекции // Известия РГПУ им. А.И. Герцена. 2008. № 36(77). С. 249—252.

3. Дерманова И.Б. Диагностика эмоционально-нравственного развития. СПб.: Речь, 2002. 176 с.

11. Prikhozhan A.M. Trevozhnost' u detei i podrostkov: psikhologicheskaya priroda i vozrastnaya dinamika [Anxiety in children and adolescents: psychological nature and age dynamics]. Moscow: MPSU Publ., 2000. 304 p. (In Russ.).

12. Avezmurodovich R. Psychological aspects of left-handedness: concept, causes, and peculiarities. *Psychology and Education*, 2021. Vol. 58, no. 1, pp. 4981—4988.

13. Callinan S., Leggat G., Van Egmonda K. The impact of handedness on health risk behaviours and socio-economic outcomes. *Personality and Individual Differences*, 2022. Vol. 187. 1114111. DOI:10.1016/j.paid.2021.111411

14. Herron J. Neuropsychology of Left-Handedness. New York: Academic Press Publ., 1980. 357 p.

15. Kumar S., Voracek M., Singh M. The effects of hand preference and sex on right-left asymmetry in dorsal digit lengths among adults and children. *Early Human Development*, 2021. Vol. 153. 105293. DOI:10.1016/j.earlhumdev.2020.105293

16. Marcori A., Monteiro P. Changing handedness: What can we learn from preference shift studies? *Neuroscience & Biobehavioral Reviews*, 2019. Vol. 107, pp. 313—319.

17. Morita T., Asada M., Naito E. Right-hemispheric Dominance in Self-body Recognition is Altered in Left-handed Individuals. *Neuroscience*, 2020. Vol. 425, pp. 68—69.

18. Peterson H., Greene A., Gao S. Large-scale differences in functional organization of left- and right-handed individuals using whole-brain, data-driven analysis of connectivity. *NeuroImage*, 2022. Vol. 252. 119040. DOI:10.1016/j.neuroimage.2022.119040

19. Pfeifer L.S., Schmitz J., Papadatou-Pastou M. et al. Handedness in twins: meta-analyses. *BMC Psychol*, 2022. Vol. 10, no. 11. DOI:10.1186/s40359-021-00695-3

20. Van der Kaap-Deeder J., Vansteenkiste M., Soenens B. Children's daily well-being: The role of mothers', teachers', and siblings' autonomy support and psychological control. *Developmental Psychology*, 2017. Vol. 53(2), pp. 237—251.

4. Донскова Е.С. Исследования эмоциональной сферы младших школьников // Наука, новые технологии и инновации Кыргызстана. 2019. № 9. С. 95—99.

5. Захаров А.И. Детские неврозы (психологическая помощь родителей детям). СПб.: Респекс, 1995. 192 с.

6. Иванов В.Д., Волошина А.И. Левши в спорте: Межполушарная асимметрия и спорт // Актуальные проблемы педагогики и психологии. 2021. Том 2. № 10. С. 41—51.

7. Ильин Е.П. Эмоции и чувства. СПб: Питер, 2001. 752 с.

8. Куприк К.С. Сравнительный анализ зрительной памяти у левой и правой // Интеллектуальные ресурсы — региональному развитию. 2021. № 1. С. 171—175.
9. Логинова Е.С., Безруких М.М., Иванов В.В., Орлов К.В. Знания учителей о психофизиологии детей с особенностями развития (дети с СДВГ, РАС, леворукие и медлительные дети) // Новые исследования. 2020. № 4(64). С. 46—73.
10. Першина К.В. Сравнительное исследование темперамента правой и левой // Вестник экспериментального образования. 2021. № 1(26). С. 12—22.
11. Прихожан А.М. Тревожность у детей и подростков: психологическая природа и возрастная динамика. М.: МПСУ, 2000. 304 с.
12. Avezmurodovich R. Psychological aspects of left-handedness: concept, causes, and peculiarities // Psychology and education. 2021. Vol. 58(1). P. 4981—4988.
13. Callinan S., Leggat G., Van Egmonda K. The impact of handedness on health risk behaviours and socio-economic outcomes // Personality and Individual Differences. 2022. Vol. 187. 1114111. DOI:10.1016/j.paid.2021.111411
14. Herron J. Neuropsychology of Left-Handedness. New York: Academic Press Publ., 1980. 357 p.
15. Kumar S., Voracek M., Singh M. The effects of hand preference and sex on right-left asymmetry in dorsal digit lengths among adults and children // Early Human Development. 2021. Vol. 153. 105293. DOI:10.1016/j.earlhumdev.2020.105293
16. Marcori A., Monteiro P. Changing handedness: What can we learn from preference shift studies? // Neuroscience & Biobehavioral Reviews. 2019. Vol. 107. P. 313—319.
17. Morita T., Asada M., Naito E. Right-hemispheric Dominance in Self-body Recognition is Altered in Left-handed Individuals // Neuroscience. 2020. Vol. 425. P. 68—69.
18. Peterson H., Greene A., Gao S. Large-scale differences in functional organization of left- and right-handed individuals using whole-brain, data-driven analysis of connectivity // NeuroImage. 2022. Vol. 252. 119040. DOI:10.1016/j.neuroimage.2022.119040
19. Pfeife L.S., Schmitz J., Papadatou-Pastou M. et al. Handedness in twins: meta-analyses // BMC Psychol. 2022. Vol. 10(11). DOI:10.1186/s40359-021-00695-3
20. Van der Kaap-Deeder J., Vansteenkiste M., Soenens B. Children's daily well-being: The role of mothers', teachers', and siblings' autonomy support and psychological control // Developmental Psychology. 2017. Vol. 53(2). P. 237—251.

#### **Information about the authors**

Ekaterina S. Donskova, PhD Student of the Department of Psychology, Kyrgyz-Russian Slavic University, Bishkek, Kyrgyzstan, ORCID: <https://orcid.org/0000-0002-2990-4076>, e-mail: [sunnysideofthirty@yandex.ru](mailto:sunnysideofthirty@yandex.ru)

#### **Информация об авторах**

Донскова Екатерина Сергеевна, аспирант кафедры психологии, Кыргызско-Российский Славянский университет, г. Бишкек, Кыргызстан, ORCID: <https://orcid.org/0000-0002-2990-4076>, e-mail: [sunnysideofthirty@yandex.ru](mailto:sunnysideofthirty@yandex.ru)

Получена 17.03.2022

Принята в печать 30.06.2022

Received 17.03.2022

Accepted 30.06.2022

# Individual and Typological Features of Relationship Between Conscious Self-Regulation, Psychological Well-Being, and Academic Performance in Fifth-Grade Pupils

**Irina N. Bondarenko**

Psychological Institute of the Russian Academy of Education, Moscow, Russia  
ORCID: <https://orcid.org/0000-0001-5539-1027>, e-mail: [pondi@inbox.ru](mailto:pondi@inbox.ru)

**Igor Yu. Tsyganov**

Psychological Institute of the Russian Academy of Education, Moscow, Russia  
ORCID: <https://orcid.org/0000-0002-1673-9091>, e-mail: [i4321@mail.ru](mailto:i4321@mail.ru)

**Angelika V. Burmistrova-Savenkova**

Psychological Institute of the Russian Academy of Education, Moscow, Russia  
ORCID: <https://orcid.org/0000-0002-3372-0675>, e-mail: [cygnet@inbox.ru](mailto:cygnet@inbox.ru)

The problem of achieving academic success and psychological well-being is connected with the search for factors that ensure the coordinated achievement of this goal. The aim of the work was to identify typological groups of students who either successfully solve this problem or fail to do it, as well as to identify the factors that help or hinder its solution. Among the factors considered are: conscious self-regulation of achieving goals, attitude to studying, academic motivation, and students' personal features. The study was carried out on a sample of fifth grade pupils (N=231, age M=11, SD=0.28). Methods: "Scale of adolescents psychological well-being manifestations", "Style of learning activity self-regulating", "Scales of students' academic motivation", "Attitude to Learning", "Big Five Children Version, BFQ-C". We identified four groups of students, most of whom (78%) successfully coped with the task of simultaneously maintaining high academic performance and psychological well-being. The factors that demonstrated a significant effect were: regulatory processes of results evaluation and programming of actions, cognitive motivation, and achievement motivation. The obstacles were: high anxiety, inability to plan one's learning goals, low level of responsibility, regulatory reliability, and flexibility. 22% of fifth graders cannot simultaneously maintain high well-being and academic performance. They need teachers and psychologists to help them to develop conscious self-regulation.

**Keywords:** academic performance, psychological well-being, conscious self-regulation, academic motivation, early adolescence.

---

**For citation:** Bondarenko I.N., Tsyganov I.Yu., Burmistrova-Savenkova A.V. Individual and Typological Features of Relationship Between Conscious Self-Regulation, Psychological Well-Being, and Academic Performance in Fifth-Grade Pupils. *Psikhologicheskaya nauka i obrazovanie = Psychological Science and Education*, 2022. Vol. 27, no. 4, pp. 15—23. DOI: <https://doi.org/10.17759/pse.2022270402> (In Russ.).



# Индивидуально-типологические особенности взаимосвязи осознанной саморегуляции, психологического благополучия и академической успеваемости учащихся пятых классов

**Бондаренко И.Н.**

ФГБНУ «Психологический институт Российской академии образования (ФГБНУ «Психологический институт РАО»), г. Москва, Российская Федерация  
ORCID: <https://orcid.org/0000-0001-5539-1027>, e-mail: [pondi@inbox.ru](mailto:pondi@inbox.ru)

**Цыганов И.Ю.**

ФГБНУ «Психологический институт Российской академии образования» (ФГБНУ «Психологический институт РАО»), г. Москва, Российская Федерация  
ORCID: <https://orcid.org/0000-0002-1673-9091>, e-mail: [i4321@mail.ru](mailto:i4321@mail.ru)

**Бурмистрова-Савенкова А.В.**

ФГБНУ «Психологический институт Российской академии образования» (ФГБНУ «Психологический институт РАО»), г. Москва, Российская Федерация  
ORCID: <https://orcid.org/0000-0002-3372-0675>, e-mail: [cygnet@inbox.ru](mailto:cygnet@inbox.ru)

В статье представлены результаты исследования личностных, регуляторных и мотивационных ресурсов достижения учебных целей и психологического благополучия младших подростков, справляющихся с переходом из начальной в среднюю школу и испытывающих трудности. Работа была направлена на выявление типологических групп учеников, успешно решающих задачу согласованного поддержания психологического благополучия и успеваемости и не справляющихся с ней. Выборку составили ученики пятых классов ( $N=231$ , возраст  $M=11$ ,  $SD=0,28$ ). Использовался следующий психологический инструментарий: «Шкала проявлений психологического благополучия подростков», «Стиль саморегуляции учебной деятельности, ССУД-М», «Шкалы академической мотивации школьников, ШАМ-Ш», «Отношение к учению», «Большая пятёрка BFQ-C». Полученные результаты позволили выявить 4 группы учеников, три из которых (78% выборки) успешно справляются с задачей одновременно поддержания как высокой успеваемости, так и психологического благополучия. Отмечается, что значимыми факторами являются: регуляторные процессы оценки результата и программирования действий, познавательная мотивация и мотивация достижения. Препятствием выступает высокая тревожность, неспособность планировать свои учебные цели, низкие ответственность, регуляторная надёжность и гибкость. 22% пятиклассников не могут одновременно поддерживать высокое благополучие и успеваемость. Им требуется помощь педагогов и психологов в развитии осознанной саморегуляции.

**Ключевые слова:** академическая успеваемость, психологическое благополучие, осознанная саморегуляция, академическая мотивация, младший подростковый возраст.

---

**Для цитаты:** Бондаренко И.Н., Цыганов И.Ю., Бурмистрова-Савенкова А.В. Индивидуально-типологические особенности взаимосвязи осознанной саморегуляции, психологического благополучия и академической успеваемости учащихся пятых классов // Психологическая наука и образование. 2022. Том 27. № 4. С. 15—23. DOI: <https://doi.org/10.17759/pse.2022270402>

## Introduction

The work aims to reveal the personal, regulatory, and motivational resources of psychological well-being (PWB) and learning goals achievement by identifying successful students and students with difficulties in moving from primary to secondary school. Self-regulation (SR) [11], achievement motivation and attitude toward learning [6], engagement [[12; 15], openness and conscientiousness [8] are attributed to unconditional resources of academic performance and well-being. However, school practices and researches have shown that the above-mentioned phenomena complete their formation between the ages of 10 and 12. [5].

Academic performance and PWB. Students often have to maintain PWB and master educational materials simultaneously. In addition to obvious difficulties, the educational evaluation system itself can also reduce student's PWB. [3]. Regulatory and motivational characteristics, which are supposed to guide and organize the students, are only starting to take shape at this point. It is considered that they are the main factors determining adolescents' psychological well-being. It is likely that they are closely related to emotional reactions [13]. We assume that there is a common latent factor that determines the complex relationship between the academic performance and well-being of young people. The researchers suggest that anxiety should be considered as a factor in this. [1; 10]. O. Brekina's survey of school anxiety among fifth-grade students showed that it was mainly related to the fear of not meeting other people's expectations. She specified changes in anxiety. At the end of the fifth grade, moderate anxiety increased from 50% to 70% and extreme anxiety decreased from 23% to 10%. [2]. Experts describe this disorder as a chronic failure and a complete regression characterized by an increased level of anxiety. It leads to bad performance and disorganized actions. At the same time, it should be noted that the optimum level of anxiety contributes to academic performance [4].

This study is based on V.I. Morosanova's differential approach. According to this approach, the study of the typical individual way to regulate the achievement of educational objectives and PWB requires analyzing the stylistic characteristics of adolescents' SR. We determine SR as a system of regulatory processes and personal features that continues in various situations of life and activities that are used to achieve important goals [5]. When students consciously use self-regulation learning, it becomes a psychological resource. It helps them to overcome negative traits of personality and character that interfere with the achievement of their goals.

High motivation is a reliable predictor of academic performance [6], and PWB [14]. Age-related features of motivation should also be taken into account, as they show the imbalanced development at an early age. We emphasize that it is difficult to talk about the motivations for the maintenance of PWB, because this objective is largely unconscious. The aim of the work is to identify typological groups of students who successfully maintain academic performance and PWB at high levels and fail to cope with this task, as well as to identify factors that help or hinder the solution of this problem.

The following research questions are provided:

Can we identify groups of fifth-graders based on their PWB and academic performance?

Are the differences in academic performance and PWB in these groups caused by differences in conscious SR, academic motivation, and personality development?

What is the contribution of school anxiety to fifth-graders' academic performance and PWB?

## Characteristics of the Sample, Research Procedures and Applied Techniques

The sample included 234 secondary school students in Moscow and Kaluga:109 girls and 125 boys (53%). Respondents were

between 10 and 12 years old ( $M=11$  years old,  $SD=.28$  years old). The study was conducted in groups at scheduled times.

Methods. 1. "The scale of adolescents' PWB manifestations" (Masse, et al, 1998, adapted by Morosanova et al., 2018). The questionnaire consists of 25 points, which form six scales: Self-management and controlling events, Social ability, Happiness, Engagement in social interactions, Self-esteem and Mental balance. The Cronbach's  $\alpha$  for the Russian version in this study varies from 0.67 to 0.87. 2. "The style of learning activity self-regulation, SRLAQ-M" (Morosanova, Bondarenko, 2018). Cronbach's  $\alpha$ : 0.65—0.82. 3. "Scales of academic schoolchildren motivation" (Gordeeva, et al., 2017). Cronbach's  $\alpha$ : 0.55—0.84. 4. "Attitude to school" (Andreeva, Prikhojan, 2006) in the modification of Morosanova et al., 2018). Cronbach's  $\alpha$ : 0.30—0.87. 5. "Big Five Questionnaire: children version" — "BFQ-C" for secondary school students (Malykh et al., 2015). Cronbach's  $\alpha$ : 0.86—0.91. 6. Annual grades in Mathematics and Russian were taken as indicators of academic performance.

Research procedure. To test this hypothesis, cluster analysis was carried out using the k-means method. The research indicators were checked by correlation analysis ( $r$  Spearman) for collinearity. As a result, some relative indicators of academic motivation were excluded from the analysis. According to L. Bergman and M. Wongby's [9] personal-oriented approach, variance analyses were performed to identify: (1) variables that differentiate the obtained typological groups, (2) variables have contributed significantly to academic performance and PWB, and (3) variables making it difficult to achieve these objectives. We also defined the features of the manifestation of anxiety in this period and the specifics of its contribution to academic performance and PWB in groups. We used STATISTICA 12 for statistical data processing was performed.

## Results

The k-means method was used to identify the typological groups of the fifth grad-

ers. We used 6 PWB subscales, total level of SR, and academic performance indicators in Mathematics and Russian. All variables have previously been standardized ( $z$  estimates). The group comparison (Kruskal—Wallis test) confirmed a significant difference between all analyzed indicators ( $p<0,000$ ).

It was shown that the highest result was achieved on the Happiness scale regardless of the total level of PWB. Cluster 3 has the highest level of PWB and academic performance, as well as the largest number of students (73 (31%)). Cluster 1 students should be given special attention by teachers. The decreased level of PWB scales in this cluster is combined with the highest neuroticism and SR profile with the prevailing planning and evaluation process of results. Additionally, an increase in anxiety and anger is established. Students in Cluster 2 are characterized by low level of SR, learning attitude, academic motivation, personal characteristics, excluding neuroticism. At the same time, it is noted that they have the highest level of amotivation and the lowest level of emotional and motivational attitude towards learning. As the academic performance is rather low (3.6 on average), self-esteem and well-being are generally at risk. Cluster 4 has a distinctive feature of inconsistency between academic performance and PWB levels. With high PWB, they have the lowest academic performance in the sample. The average values of the clusters' indicators are presented in the Table.

To answer the question of whether academic performance and PWB differences in these groups can be explained by differences in SR, academic motivation, and personal characteristics, discriminant function analysis was conducted.

We used the clusters indicator as a dependent variable. The independent variables included all processes and characteristics of conscious SR, personality, motivation, indicators of attitude to learning and academic performance, which were selected by correlation analysis. The results showed that the differences between the four groups in the discriminating function space are statisti-

Table

**Average values of PWB Indicators, Academic Performance, SR, Motivational and Emotional Attitude to Learning, and Personal Characteristics in four clusters**

Cluster		Cluster 1 N=64 (27%)	Cluster 2 N=43 (18%)	Cluster 3 N=73 (31%)	Cluster 4 N=54 (22%)
		M (SD)	M (SD)	M (SD)	M (SD)
Academic performance					
a	Math [2—5] — <i>acceptable values range for variables</i>	3.9(0.7)	3.8(0.5)	4.6(0.5)	3.4(0.5)
b	Russian [2—5]	4.0(0.5)	3.5(0.6)	4.2(0.5)	3.0(0.1)
PWB					
a	Control of Self and Events [0—20]	14.1(2.3)	10.1(2.6)	17.0(1.9)	15.3(2.2)
b	Happiness	18.3(2.9)	14.4(3.2)	22.5(2.1)	21.2(2.7)
c	Social Involvement	14.3(2.2)	11.1(3.3)	17.4(1.8)	16.8(2.1)
d	Self-Esteem	14.0(2.3)	9.5(2.7)	16.9(2.1)	14.2(2.5)
e	Mental Balance	13.4(2.3)	11.9(2.8)	17.4(1.8)	16.0(2.4)
f	Sociability	14.7(2.4)	11.3(2.8)	17.5(1.9)	16.9(1.9)
Total level of PWB = a+b+c+d+e+f [0—120]		88.8(5.8)	68.3(9.6)	108.8(7.5)	100.3(8.3)
Motivational and emotional attitude to learning					
a	Cognitive activity	16.2(3.5)	14.8(3.4)	19.4(2.9)	18.4(2.9)
b	Achievement motivation	18.5(3.3)	16.5(3.7)	21.1(2.7)	18.8(3.1)
c	Anxiety	11.7(4.4)	15.4(3.3)	9.4(3.2)	11.6(4.2)
d	Anger	11.6(5.0)	13.7(4.8)	8.8(3.3)	10.3(4.2)
e	Motivation for avoiding failure	14.0(3.6)	15.9(2.9)	11.5(3.0)	13.7(3.2)
Total level of attitude to learning = a+b-(c+d+e) [-30 — +30]		-2.7(13.5)	-13.7(9.1)	23(10.3)	1.7(13)
Conscious self-regulation					
a	Planning [0-6]	4.2(1.4)	3.3(1.5)	4.9(1.1)	4.4(1.3)
b	Modeling	3.1(1.7)	2.3(1.6)	4.4(1.5)	3.1(1.7)
c	Programming	4.2(1.6)	3.3(1.7)	4.8(1.4)	4.4(1.4)
d	Results evaluation	2.9(1.5)	2.4(1.6)	4.2(1.4)	2.9(1.7)
e	Flexibility	3.2(1.5)	2.8(1.3)	4.4(1.1)	3.3(1.2)
f	Independence	3.8(1.4)	3.2(1.4)	4.2(1.2)	4.1(1.2)
g	Reliability	2.9(1.6)	2.5(1.3)	4.2(1.6)	2.8(1.6)
i	Responsibility	3.8(1.5)	3.1(1.6)	4.9(1.2)	3.9(1.4)
j	Social desirability	2.8(1.0)	2.3(1.1)	3.2(1.0)	2.9(1.1)
Total level of SR = a+b+c+d+e+f+g+i+j [0—60]		28.0(7.9)	22.9(6.5)	36.1(7.3)	28.9(6.8)
Academic motivation					
a	Conscious motivation [1—6]	3.7(1.0)	3.4(0.8)	4.4(0.7)	3.9(0.9)
b	Motivation of achievement	3.3(1.2)	3.1(0.7)	4.2(0.8)	3.5(1.0)
c	Motivation of self-development	3.6(0.9)	3.3(0.6)	4.2(0.7)	3.8(0.8)

Cluster		Cluster 1	Cluster 2	Cluster 3	Cluster 4
		N=64 (27%)	N=43 (18%)	N=73 (31%)	N=54 (22%)
		M (SD)	M (SD)	M (SD)	M (SD)
d	Self-esteem motivation	3.9(0.9)	3.4(0.7)	4.4(0.7)	3.9(0.9)
e	Introjected motivation	3.7(0.8)	3.5(0.8)	3.5(0.9)	3.6(0.8)
f	Motivation of parent's respect	3.7(1.2)	3.4(0.8)	4.1(0.9)	4.1(0.8)
g	External motivation	3.4(1.1)	3.4(0.7)	3.1(1.0)	3.5(0.9)
i	Amotivation	2.3(1.2)	3.1(1.0)	1.9(1.1)	2.6(1.1)
Personality					
a	Extraversion [0—60]	33.5(8.9)	28.1(6.8)	38.0(11.9)	37.7(10.2)
b	Agreeableness	36.0(10)	30.5(7.6)	40.8(13.2)	39.9(11.4)
c	Conscientiousness	34.0(10.7)	27.9(8.7)	39.8(12.4)	37.3(11.4)
d	Neuroticism	26.3(9.7)	24.7(7.4)	20.7(6.7)	23.4(7.4)
e	Openness	35.8(10.9)	28.4(7.4)	41.8(13.2)	38.9(11.2)

cally significant (Wilks' Lambda:0.163 approx.  $F(39.646)=13.95$   $p<0,000$ ). The quality of classification was at 78.6%.

Analysis showed that three discriminator functions divided sample into 4 groups ( $p<0.000$ ): the first discriminator function explains 64% of the variance, the second — 22%, and the third — 14%. We estimated standardized coefficients to access contribution of each variable to these functions.

Therefore, the first function (Root 1) is determined by the regulatory process of the results evaluation ( $\beta=0.43$ ) and programming ( $\beta=0.20$ ) and the motivational characteristics of cognitive motivation ( $\beta=0.26$ ) and achievement motivation ( $\beta=0.26$ ). The second function includes anxiety ( $\beta =-0.87$ ), anger ( $\beta=0.55$ ), regulatory planning ( $\beta=0.56$ ), and neurosis ( $\beta=0.45$ ). The third function (Root 3) is determined by the extraversion ( $\beta=-0.715$ ), the regulatory properties of reliability ( $\beta= 0.49$ ) and responsibility ( $\beta=0.33$ ), the regulatory process of modeling ( $\beta=0.26$ ), and amotivation ( $\beta=-0.60$ ). In conclusion, academic performance and PWB depended, firstly, on motivation for achieving educational goals, the ability to move towards that goals step by step, and the availability of feedback. The second function describes limitations: combined negative emotions that cannot be controlled and setting learning goals that they cannot achieve. The third factor is the low level of extraversion,

and high level of reliability and responsibility, as well as ability to retain permanent interest in learning.

## Discussion

The third factor is the low extraversion, and high reliability and responsibility, as well as ability to retain permanent interest in learning. 78% of the students successfully transitioned to secondary school, and achieved high grades and high PWB. The data obtained are consistent with the results of longitudinal studies, demonstrating that the PWB of the fourth graders determines the academic performance and the SR level in the fifth grade [7]. Therefore, PWB can be considered a psychological resource for early adolescents' academic performance. In fact, three of the four selected groups were consistent with academic performance and PWB. However, the current study shows that there are students (22%) who are not reproducing this pattern. High PWB in this group is associated with poor academic performance.

It was revealed that students in this group are characterized with low SR of learning goals achievement. We found low level of regulatory planning and modelling, as well as independence, regulatory flexibility, achievement motivation, and cognitive activity. The collected data contribute to understanding chronic fail-

ure psychological syndrome. It begins to form in primary school and finally appears in the secondary school. It seems that the students of this group are poorly aware of their anger and anxiety. The personal-oriented approach of this study identified variables that differs students of the groups with “full success and happiness” from the group “unsuccessful, but so far satisfied”. The main variables concern the students' ability to understand the teachers' feedback, to plan learning goals, and be interested in specific academic subject and motivation. Furthermore, it is important to be able to deal with negative emotions, especially with anxiety. The variables of regulatory programming of actions and responsibility also contribute to group division.

One objective of the research was to study the role of school anxiety and analyze its contribution to academic performance and PWB. High anxiety (as a condition) had a negative impact on academic performance and well-being. However, neuroticism (as a personal disposition), which enters the second discriminatory function with positive signs, contributes to achieving educational goals in secondary school.

The current study shows that academic performance and PWB are determined by regulatory, motivational, emotional, and personal factors, some of which are at the forma-

tion stage. This gives the possibility to identify predictors of academic performance and well-being and estimate their contribution during stressless learning periods with no exams.

### Main results of the study

Most of the fifth-grade students have successfully achieved high academic achievement and high PWB (78%). This result is first and foremost provided by timely and clear teachers' feedback, the ability of students to plan their learning activities, to maintain their interest in a particular school discipline as well as high level of motivation of goals achievement.

We identified a group of students (22%), whose high PWB is combined with low grades. In order to overcome chronic failure, conscious self-regulation, particularly planning and modelling processes, and regulatory characteristics of responsibility, reliability and flexibility have to be developed.

It is shown that anxiety and neuroticism contribute in multiple directions to the performance and well-being of the fifth-grade students.

Anxiety as a condition has a negative impact on performance and PWB, neuroticism as a personal disposition provides the achieving of high educational results.

### References

1. Borisov I.V. Vzaimosvyaz' shkol'noi trevozhnosti i motivatsii uchebnoi deyatel'nosti na etape adaptatsii k obucheniyu v 5-kh klassakh [The relationship of school anxiety and motivation of educational activity at the stage of adaptation to learning in 5th grades]. *Psikhologicheskaya nauka i obrazovanie = Psychological science and education*, 2018. Vol. 23, no. 5, pp. 22—28. DOI:10.17759/pse.2018230503 (In Russ).
2. Brekina O.V. Osobennosti proyavleniya shkol'noi trevozhnosti v protsesse sotsial'no-psikhologicheskoi adaptatsii k obucheniyu v srednem zvene [Features of the manifestation of school anxiety in the process of socio-psychological adaptation to secondary education]. *Problemy sovremennogo pedagogicheskogo obrazovaniya [Problems of modern pedagogical education]*, 2017, no. 55—8, pp. 265—276. (In Russ.).
3. Gordeeva T.O., Sychev O.A., Sidneva A.N. Otsenivanie dostizhenii shkol'nikov v traditsionnoi i

razvivayushchei sistemakh obucheniya: psikhologo-pedagogicheskii analiz [Assessment of students' achievements in traditional and developing learning systems: psychological and pedagogical analysis]. *Voprosy obrazovaniya [Questions of Education]*, 2021, no. 1, pp. 213—236. DOI:10.17323/1814-9545-2021-1-213-236 (In Russ.).

4. Ishmuratova Yu.A., Potanina A.M., Bondarenko I.N. Vklad osoznannoi samoregulyatsii, вовлеченности i motivatsii v akademicheskuyu uspevaemost' shkol'nikov v raznye periody obucheniya [The contribution of conscious self-regulation, involvement and motivation to the academic performance of schoolchildren in different periods of study]. *Psikhologicheskaya nauka i obrazovanie = Psychological science and education*, 2021. Vol. 26, no. 5, pp. 17—29. DOI:10.17759/pse.2021260502 (In Russ.).
5. Morosanova V.I. Osoznannaya samoregulyaciya kak metaresurs dostizheniya celej i razresheniya

- problem zhiznedeyatel'nosti [Conscious self-regulation as a meta-resource for achieving goals and solving life problems]. *Vestnik Moskovskogo universiteta [Bulletin of the Moscow University]. Ser. 14. Psihologiya [Psychology]*, 2021, no. 1, pp. 3—37. DOI:10.11621/vsp.2021.01.01 (In Russ.).
6. Morosanova V.I., Bondarenko I.N., Fomina T.G. Osoznannaya samoregulyatsiya i lichnostno-motivatsionnye osobennosti mladshikh podrostkov s razlichnoi dinamikoi psikhologicheskogo blagopoluchiya [Conscious self-regulation and personality-motivational features of younger adolescents with different dynamics of psychological well-being]. *Psihologicheskaya nauka i obrazovanie = Psychological science and education*, 2019. Vol. 24, no. 4, pp. 5—21. DOI:10.17759/pse.2019240401 (In Russ.).
7. Fomina T.G. Vzaimosvyaz' psikhologicheskogo blagopoluchiya i akademicheskoi uspevaemosti mladshikh podrostkov: mediatornaya rol' regulatoryornykh kharakteristik [The relationship of psychological well-being and academic performance of younger adolescents: the mediator role of regulatory characteristics]. *Psihologiya samoregulyatsii v kontekste aktual'nykh zadach obrazovaniya (k 90-letiyu so dnya rozhdeniya O.A. Konopkina): sbornik nauchnykh statei [Psychology of self-regulation in the context of urgent educational tasks (to the 90th anniversary of the birth of O.A. Konopkin): collection of scientific articles]*. Pod redaktsiei V.I. Morosanovoi, Yu.P. Zinchenko, Moscow: FGBNU «Psihologicheskii institut RAO, 2021, pp. 112—119. DOI:10.24412/cl-36466-2021-1-112-119 (In Russ.).
8. Fomina T.G., Eftimova O.V., Morosanova V.I. Vzaimosvyaz' sub'ektivnogo blagopoluchiya s regulatorynymi i lichnostnymi osobennostyami u uchashchikhsya mladshego shkol'nogo vozrasta [Elektronnyi resurs] [The relationship of subjective well-being with regulatory and personal characteristics in primary school age students]. *Psihologo-pedagogicheskie issledovaniya = Psychological and pedagogical research*, 2018. Vol. 10, no. 2, pp. 64—76. DOI:10.17759/psyedu.2018100206 (In Russ.).
9. Bergman L., Wängby M. The person-oriented approach: A short theoretical and practical guide *Estonian Journal of Education*, 2014. Vol. 2(1), pp. 29—49. DOI:10.12697/eha.2014.2.1.02b
10. Bücken S., Nuraydin S., Simonsmeier B., Schneider M., Luhmann M Subjective well-being and academic achievement: A meta-analysis. *Journal of Research in Personality*, 2018. Vol. 74, pp. 83—94. DOI:10.1016/j.jrp.2018.02.007
11. Fomina T., Burmistrova-Savenkova A., Morosanova V. Self-regulation and psychological well-being in early adolescence: A two-wave longitudinal study. *Behavioral Sciences*, 2020. Vol. 10(3). P. 67. DOI:10.3390/bs10030067
12. Fredricks J., Reschly A., Christenson S. Handbook of student engagement interventions: working with disengaged students. London; San Diego: Academic Press, 2019, 410 p.
13. Garcia D. Two models of personality and well-being among adolescents. *Personality and Individual Differences*, 2011. Vol. 50(8), pp. 1208—1212. DOI:10.1016/j.paid.2011.02.009
14. Ryan R.M., Deci E.L. Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American psychologist*, 2000. Vol. 55(1), pp. 68—78. DOI:10.1037/0003-066X.55.1.68
15. Wang M., Deng X., Du X. Harsh parenting and academic achievement in Chinese adolescents: Potential mediating roles of effortful control and classroom engagement. *Journal of School Psychology*, 2018. Vol. 67, pp. 16—30. DOI:10.1016/j.jsp.2017.09.002

## Литература

1. Борисова И.В. Взаимосвязь школьной тревожности и мотивации учебной деятельности на этапе адаптации к обучению в 5-х классах // Психологическая наука и образование. 2018. Том 23. № 5. С. 22—28. DOI:10.17759/pse.2018230503
2. Брекина О.В. Особенности проявления школьной тревожности в процессе социально-психологической адаптации к обучению в среднем звене // Проблемы современного педагогического образования. 2017. № 55-8. С. 265—276.
3. Гордеева Т.О., Сычев О.А., Сиднева А.Н. Оценивание достижений школьников в традиционной и развивающей системах обучения: психолого-педагогический анализ // Вопросы образования. 2021. № 1. С. 213—236. DOI:10.17323/1814-9545-2021-1-213-236
4. Ишмуратова Ю.А., Потанина А.М., Бондаренко И.Н. Вклад осознанной саморегуляции, вовлеченности и мотивации в академическую успеваемость школьников в разные периоды обучения // Психологическая наука и образование. 2021. Том 26. № 5. С. 17—29. DOI:10.17759/pse.2021260502
5. Моросанова В.И. Осознанная саморегуляция как метаресурс достижения цели и разрешения проблем жизнедеятельности // Вестник Московского университета. Серия 14. Психология. 2021. № 1. С. 3—37. DOI:10.11621/vsp.2021.01.01
6. Моросанова В.И., Бондаренко И.Н., Фомина Т.Г. Осознанная саморегуляция и личностно-мотивационные особенности младших подростков с различной динамикой психологического благополучия // Психологическая наука и образование. 2019. Том 24. № 4. С. 5—21. DOI:10.17759/pse.2019240401
7. Фомина Т.Г. Взаимосвязь психологического благополучия и академической успеваемости

младших подростков: медиаторная роль регуляторных характеристик // Психология саморегуляции в контексте актуальных задач образования (к 90-летию со дня рождения О.А. Конопкиной): сборник научных статей / Под ред. В.И. Моросановой, Ю.П. Зинченко. М.: ФГБНУ «Психологический институт РАО», 2021. С. 112—119. DOI:10.24412/cl-36466-2021-1-112-119

8. Фомина Т.Г., Ефимова О.В., Моросанова В.И. Взаимосвязь субъективного благополучия с регуляторными и личностными особенностями у учащихся младшего школьного возраста [Электронный ресурс] // Психолого-педагогические исследования. 2018. Том 10. № 2. С. 64—76. DOI:10.17759/psyedu.2018100206

9. Bergman L., Wangby M. The person-oriented approach: A short theoretical and practical guide // Estonian Journal of Education. 2014. Vol. 2(1). P. 29—49. DOI:10.12697/eha.2014.2.1.02b

10. Buecker S. et al. Subjective well-being and academic achievement: A meta-analysis // Journal of Research in Personality. 2018. Vol. 74. P. 83—94. DOI:10.1016/j.jrp.2018.02.007

11. Fomina T., Burmistrova-Savenkova A., Morosanova V. Self-regulation and psychological well-being in early adolescence: A two-wave longitudinal study // Behavioral Sciences. 2020. Vol. 10(3). P. 67. DOI:10.3390/bs10030067

12. Fredricks J., Reschly A., Christenson S. Handbook of student engagement interventions: working with disengaged students. London, San Diego: Academic Press, 2019. 410 p.

13. Garcia D. Two models of personality and well-being among adolescents // Personality and Individual Differences. 2011. Vol. 50(8). P. 1208—1212. DOI:10.1016/j.paid.2011.02.009

14. Ryan R.M., Deci E.L. Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being // American psychologist. 2000. Vol. 55(1). P. 68—78. DOI:10.1037/0003-066X.55.1.68

15. Wang M., Deng X., Du X. Harsh parenting and academic achievement in Chinese adolescents: Potential mediating roles of effortful control and classroom engagement // Journal of School Psychology. 2018. Vol. 67. P. 16—30. DOI:10.1016/j.jsp.2017.09.002

#### Information about the authors

Irina N. Bondarenko, PhD in Psychology, Leading Researcher Psychological Institute of the Russian Academy of Education, Moscow, Russia, ORCID: <https://orcid.org/0000-0001-5539-1027>, e-mail: [pondi@inbox.ru](mailto:pondi@inbox.ru)

Igor Yu. Tsyganov, PhD in Psychology, Senior Researcher, Psychological Institute of the Russian Academy of Education, Moscow, Russia, ORCID: <https://orcid.org/0000-0002-1673-9091>, e-mail: [i4321@mail.ru](mailto:i4321@mail.ru)

Angelika V. Burmistrova-Savenkova, PhD in Psychology, Senior Researcher, Psychological Institute of the Russian Academy of Education, Moscow, Russia, ORCID: <https://orcid.org/0000-0002-3372-0675>, e-mail: [cygnet@inbox.ru](mailto:cygnet@inbox.ru)

#### Информация об авторах

Бондаренко Ирина Николаевна, кандидат психологических наук, ведущий научный сотрудник, ФГБНУ «Психологический институт Российской академии образования» (ФГБНУ «Психологический институт РАО»), г. Москва, Российская Федерация, ORCID: <https://orcid.org/0000-0001-5539-1027>, e-mail: [pondi@inbox.ru](mailto:pondi@inbox.ru)

Цыганов Игорь Юрьевич, кандидат психологических наук, старший научный сотрудник, ФГБНУ «Психологический институт Российской академии образования» (ФГБНУ «Психологический институт РАО»), г. Москва, Российская Федерация, ORCID: <https://orcid.org/0000-0002-1673-9091>, e-mail: [i4321@mail.ru](mailto:i4321@mail.ru)

Бурмистрова-Савенкова Анжелика Валерьевна, кандидат психологических наук, старший научный сотрудник, ФГБНУ «Психологический институт Российской академии образования» (ФГБНУ «Психологический институт РАО»), г. Москва, Российская Федерация, ORCID: <https://orcid.org/0000-0002-3372-0675>, e-mail: [cygnet@inbox.ru](mailto:cygnet@inbox.ru)

Получена 18.03.2022

Принята в печать 30.06.2022

Received 18.03.2022

Accepted 30.06.2022



# Factors of Psychological Well-Being in Russian Youth

**Oksana M. Isaeva**

National Research University Higher School of Economics, Nizhny Novgorod, Russia  
ORCID: <https://orcid.org/0000-0002-0926-5182>, e-mail: [oisaeva@hse.ru](mailto:oisaeva@hse.ru)

**Anna Yu. Akimova**

National Research University Higher School of Economics, Nizhny Novgorod, Russia  
ORCID: <https://orcid.org/0000-0002-5750-8409>, e-mail: [anna\\_ak@rambler.ru](mailto:anna_ak@rambler.ru)

**Elena N. Volkova**

Nizhniy Novgorod State Pedagogical University, Nizhny Novgorod, Russia  
ORCID: <https://orcid.org/0000-0001-9667-4752>, e-mail: [envolkova@yandex.ru](mailto:envolkova@yandex.ru)

The article presents the results of studying the characteristics of psychological well-being of young people in Russia with the PERMA-Profiler questionnaire adapted for the Russian-speaking sample by O.M. Isaeva, A.Yu. Akimova, E.N. Volkova. The study involved 11811 young people living in the central part of Russia. The results of the study suggest that family characteristics (official marriage, having children, living together with a family), income level, life goals (strong family, good education, high earnings, power over others), attitude towards one's future, following global trends (preservation of the environment, protection of animals), a trusting attitude to modern innovative technologies, including Russian ones, are factors of well-being in Russian youth aged 18 to 35 years. Young people who are positive about their future prospects, focused on strong family and good education, expressing trusting attitude to modern technologies, following world trends in environmental and humanistic orientation, have higher scores of general well-being and its components as compared to those who are focused on increasing material wealth and power over other people, are characterized by a pessimistic attitude towards the future, dissatisfaction with the financial situation, and having low confidence in modern technologies. The results of the study can be used in programs aimed to improve well-being of young people.

**Keywords:** well-being, psychological well-being, factors of well-being, PERMA-Profiler, youth in Russia, trust in technology.

---

**Funding.** The study is funded by the Russian Science Foundation (RSC) under the granted project № 22-28-20262.

**For citation:** Isaeva O.M., Akimova A.Yu., Volkova E.N. Factors of Psychological Well-Being in Russian Youth. *Psikhologicheskaya nauka i obrazovanie = Psychological Science and Education*, 2022. Vol. 27, no. 4, pp. 24—35. DOI: <https://doi.org/10.17759/pse.2022270403> (In Russ.).

# Факторы психологического благополучия российской молодежи

**Исаева О.М.**

ФГАОУ ВО «Национальный исследовательский университет «Высшая школа экономики» (ФГАОУ ВО НИУ ВШЭ), г. Нижний Новгород, Российская Федерация  
ORCID: <https://orcid.org/0000-0002-0926-5182>, e-mail: oisaeva@hse.ru

**Акимова А.Ю.**

ФГАОУ ВО «Национальный исследовательский университет «Высшая школа экономики» (ФГАОУ ВО НИУ ВШЭ), г. Нижний Новгород, Российская Федерация  
ORCID: <https://orcid.org/0000-0002-5750-8409>, e-mail: anna\_ak@rambler.ru

**Волкова Е.Н.**

ФГБОУ ВО «Нижегородский государственный педагогический университет им. К. Минина» (ФГБОУ ВО «Мининский университет»), г. Нижний Новгород, Российская Федерация  
ORCID: <https://orcid.org/0000-0001-9667-4752>, e-mail: envolkova@yandex.ru

Представлены результаты изучения особенностей психологического благополучия российской молодежи с использованием опросника PERMA-Profilер, адаптированного для русскоязычной выборки О.М. Исаевой, А.Ю. Акимовой, Е.Н. Волковой. В исследовании приняли участие 11811 молодых людей в возрасте 18-35 лет, проживающих в Центральной части России. Полученные результаты свидетельствуют о том, что характеристики семейного статуса (официальное заключение брака, наличие детей, совместное проживание с семьей), уровень дохода, жизненные цели (крепкая семья, хорошее образование, высокий заработок, власть над другими), отношение к своему будущему, следование мировым трендам (сохранение экологии, защита животных), доверительное отношение и принятие современных инновационных технологий, в том числе российских, являются факторами психологического благополучия российской молодежи в возрасте от 18 до 35 лет. Молодые люди, характеризующиеся позитивным восприятием перспектив в будущем, ориентацией на крепкую семью и получение хорошего образования, доверительным отношением и принятием современных технологий, следованием мировым трендам экологической и гуманистической направленности, имеют более высокие значения общего благополучия и его компонентов по сравнению с теми, для кого приоритетна ориентация на повышение материального достатка и власти над другими людьми, характерно пессимистичное отношение к будущему, неудовлетворенность материальным положением, низкое доверие современным технологиям. Результаты исследования могут быть использованы в программах повышения благополучия молодежи.

**Ключевые слова:** благополучие, психологическое благополучие, факторы благополучия, PERMA-Profilер, российская молодежь, доверие технологиям.

---

**Финансирование.** Исследование выполнено при финансовой поддержке Российского научного фонда (РНФ) в рамках научного проекта № 22-28-20262.

**Для цитаты:** Исаева О.М., Акимова А.Ю., Волкова Е.Н. Факторы психологического благополучия российской молодежи // Психологическая наука и образование. 2022. Том 27. № 4. С. 24—35. DOI: <https://doi.org/10.17759/pse.2022270403>

## Introduction

Well-being, as well as happiness and prosperity — closely related phenomena that describe the most positive experiences of a young person, — have formed a vast area of psychological, pedagogical and sociological research in recent years.

Researchers have proven that a high level of well-being in all the main components thereof ensure a person functions effectively and contributes to self-realization [11; 13; 19; 20]. However, “well-being” is defined both as an objective indicator of life satisfaction (for example, when assessing the quality of life in a city, region, country, etc.), and as a subjective indicator — “a subjective assessment of life as a whole being close to the maximum desirable state” [8].

Analysis and systematization of well-being studies allows us to differentiate between hedonistic and eudemonistic approaches to the well-being of adolescents and young people [1; 2; 3; 4; 5; 6].

Studies carried out within the framework of the hedonistic approach and focused on positive feelings and overall satisfaction [13; 18] have described the influence of the modernization of Russian society on the social well-being of young people and the connections between subjective quality of life and ideas of happiness among youth. Future prospects were analyzed in terms of subjective well-being, with attention to features such as emotional well-being, happiness and life satisfaction and young people, including gender-associated characteristics of well-being [1; 2; 3; 4; 6; 21].

Within the framework of the eudemonistic approach, well-being is described in terms of personal development, the acquisition of a personal identity, a high level of self-realization, and the ability to have primary agency in one’s own life. Well-being is associated with the development of personal resources of positive functioning and with a personal assessment of predictors

of happiness; they speak of well-being as becoming a holistic, meaningful and fully fledged being [17; 19; 20; 21]. Such studies are dedicated to the strategies for achieving psychological well-being by modern youth and the relationship between morality, social status and psychological and emotional development [2; 21].

One of the most well-known implementations of this approach is the PERMA well-being model, created and presented by M. Seligman in *The Theory of Well-being* [19]. In 2016, based on that model, Australian researchers J. Butler and M. Kern developed the PERMA-Profiler diagnostic tool which tool demonstrated high reliability and validity. Following M. Seligman in her understanding of well-being, the authors discussed “prosperity” as a state of equilibrium between a high level of emotional, psychological and social well-being [10]. The questionnaire is widely used by psychologists around the world, particularly in England, Greece, Korea, Italy, and the United States of America [9; 12; 14; 16; 17; 18; 21]. In 2021, the questionnaire was translated and adapted to be administered in Russia [7].

The factors of psychological well-being in the context of their specific socio-cultural conditions remains an important issue to be researched. Despite the fact that the phenomenon of psychological well-being and its manifestations among Russian youth are a focus of scientific interest, the nature and degree of influence of social and socio-psychological factors on the psychological well-being of Russian youth are still obscure. Socio-demographic characteristics that determine the psychological well-being of different youth groups, the relationship between life goals and values, and the attitude of young people with different levels of psychological well-being to modern global trends and technologies are of social and practical importance for establishing a basis of evidence for state policy on working with youth.

The goal of the current study was to assess the factors of psychological well-being of Russian youth.

### Methods and tools

The study of the level of psychological well-being of Russian youth was carried out with the PERMA-Profiler questionnaire (Butler, Kern, 2016), adapted for the Russian-speaking sample by Isaeva, Akimova, and Volkova [7; 10]. The adapted PERMA-Profiler questionnaire corresponds structurally to the original theoretical construct and has passed checks for convergent and discriminant validity, has high reliability in terms of internal consistency (Cronbach's  $\alpha=0.80$ ) and, in general, meets the requirements for psychodiagnostics tools [7].

The questionnaire was administered to the youth of Central Russia through Google forms. The study was anonymous and was conducted on a voluntary basis. The form also included questions about the socio-demographic characteristics of the respondents, their life goals, values, and attitudes to global trends and modern technologies.

The results of the study were processed using the methods of descriptive statistics, frequency analysis, and analysis of differences in the computer programs IBM SPSS STATISTICS 26. To analyze the differences in categorical data presented in percentage terms, Pearson's  $\chi^2$  goodness-of-fit test was used; analysis of differences in quantitative data was carried out through the ANOVA (Fisher's F test) procedure.

Effect sizes were calculated using the software provided on the Psychometrica portal ([www.psychometrica.de](http://www.psychometrica.de)).

The study sample consists of 11,811 young people aged 18 to 35, of whom: 6,118 (51.8%) are 18—22 years old, 2,480 (21.0%) — 23—30, 3,213 (27.2%) — 31—35. 3,729 (31.6%) are males, 8,078 (68.4%) females; 4,125 (34.9%) graduated from the University, 1,509 (12.7%) graduat-

ed from middle educational level institution, another 6,177 (52.3%) are currently studying at institutions of different levels.

### Results

The assessment of the psychological well-being of Russian youth was carried out with the PERMA-Profiler questionnaire for a Russian-speaking sample.

The data collected indicates that descriptive statistical estimates of the questionnaire scales are close to the values obtained during the testing of the Butler-Kern questionnaire on a sample of 31,965 people from 18 countries (Table 1) [10].

The highest values were obtained for the Happiness ( $M=7.40$ ; Median=8.00) and Positive emotion ( $M=7.31$ ; Median=7.67) scales. It is on these scales of the questionnaire that the median and mean values are somewhat higher than in the comparative sample. The lowest values were noted on the Loneliness ( $M=4.47$ ; Median=4.00) and Negative Emotion ( $M=5.77$ ; Median=5.67) scales.

Normality check with the Kolmogorov-Smirnov (KS) test showed that the data on the scales are distributed normally ( $KS=0.045 \div 0.157$ ;  $p \leq 0.01$ ). All scales, except for the Negative Emotion, showed a right-sided asymmetry ( $A=-0.792 \div -0.433$ ), which is consistent with previous studies by Butler and Kern [10].

At the same time, the data showed heterogeneity in the distribution between respondents with different levels on the well-being scales. Three groups (clusters) of respondents were identified through the cluster analysis procedure of K-means clustering applied to the preliminary standardized data (Fig. 1).

4,913 (41.6%) respondents were assigned to the first cluster, 4,912 (41.6%) to the second, and 1,986 (16.8%) to the third. All three clusters are statistically different regarding wellbeing scales (according to the results of ANOVA and  $\chi^2$  test) (see Table 2, Table 3, Table 4).

Table 1

**Descriptive statistics of wellbeing scales in the study sample and comparative sample (according to Butler, Kern, 2016)**

Scale name	Study sample (N=11811)			Comparative sample (N=31965)		
	M (SD)	Median	Min/Max	M (SD)	Median	Min/Max
Positive Emotion	7.31 (1.79)	7.67	0/10	6.69 (1.97)	7.00	0/10
Relationship	7.14 (1.98)	7.33	0/10	6.90 (2.15)	7.33	0/10
Engagement	7.05 (1.61)	7.33	0/10	7.25 (1.71)	7.67	0/10
Meaning	7.08 (1.85)	7.33	0/10	7.06 (2.17)	7.67	0/10
Accomplishment	7.15 (1.56)	7.33	0/10	7.21 (1.78)	7.67	0/10
Negative Emotion	5.77 (1.86)	5.67	0/10	4.46 (2.06)	4.33	0/10
Physical Health	6.71 (1.95)	7.00	0/10	7.33 (2.18)	7.33	0/10
Loneliness	4.47 (2.77)	4.00	0/10	-	-	-
Happiness	7.40 (2.11)	8.00	0/10	7.02 (1.66)	7.38	0/10

Notes: M — mean value; SD — standard deviation; Median — median; Min — minimum; Max — maximum; the study of the comparative sample doesn't report mean, median, minimum or maximum on the Loneliness scale.

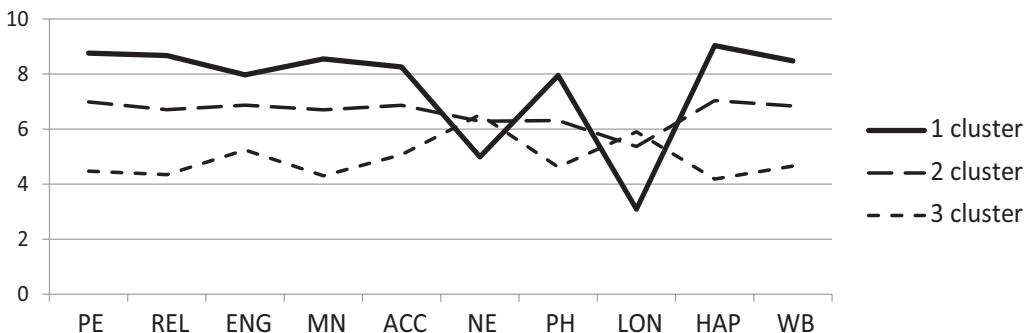
Respondents assigned to Cluster 1 have significantly higher estimates on PERMA-Profiler scales with a clearly 'positive' meaning (for example, Positive Emotion, Physical Health) and lower values on 'negative' scales (such as Negative Emotion or Loneliness) than other respondents (Fig. 1).

For those assigned to the 3rd cluster, values on the positive scales were significantly

lower, and on negative scales significantly higher, than for other respondents. This group is comparatively smaller than other groups in the sample (16.8%).

Cluster 2 included respondents with an average level on the scales.

Respondents assigned to clusters 1, 2, 3 will be further called respondents with a "high", "average", and "low" levels of well-be-



Notes: PE — Positive Emotion; REL — Relationship; ENG — Engagement; MN — Meaning; ACC — Accomplishment; NE — Negative Emotion; PH — Physical Health; LON — Loneliness; HAP — Happiness; WB — Total Wellbeing

ing, respectively. These names are conditional and introduced to facilitate further meaningful interpretation of the data obtained. The objective values on the scales ranged from average to high for all respondents.

Respondents with differences in the scales of well-being also varied in marital status, the presence or absence of children, and income levels (Table 2).

A greater number of respondents assigned to Cluster 1 with a high level of well-being are officially married and live with a spouse and/or children, and earn more than 40,000 rubles per month. Among them, fewer people have no children.

In the group of respondents assigned to the 3rd cluster with a low level of well-being, there are significantly more of those who have no children, and fewer of those who are officially married, live with their families and have an income of more than 40,000 rubles.

Respondents from Cluster 2 with an average level of well-being in terms of the above characteristics are in between the 1st and 3rd clusters. The effect sizes for all characteristics in Table 2 is less than 0.1, which is considered to be low [15].

### Life goals, values and prospects

We also collected the data on life values, life goals and life prospects. Table 3 shows

the characteristics for which there were statistically significant differences in the distribution of respondents assigned to different clusters and the corresponding values of the individual characteristics.

The blocks “Life values”, “Accomplishment of life goals”, and “Life prospects” on Table 3 contain the percentage of respondents who have marked the appropriate answer in the survey. The “Life goals” block includes the average rankings, reflecting the importance of this goal for the respondent (the most important goal takes first rank).

For Cluster 1, there are significantly more respondents (compared to the rest) who are clearly positive towards their future in various spheres of life, including their future in their profession. In addition, a strong family and a good education are the most important goals.

Respondents assigned to Cluster 3 are characterized by a greater number of those interested in material well-being, passive in the achievement of their goals and pessimistic about the future. For this group of respondents, life goals related to material wealth and power over other people are the most significant.

The effect size is large for the indicator “I look to the future with confidence and optimism” from the “Life prospects” block ( $\varphi=0.805$ ), and average for the indicator

Table 2

### Family and income

Indicator	% of respondents				Difference between clusters		
	Total	1 Cluster	2 Cluster	3 Cluster	$\chi^2$	P	Effect size
Married — officially	33.2	38.5	31.8	23.5	8.21	0.02*	$\varphi=0.099$
Live with a family (spouse, children)	38.6	44.3	37.6	27.2	8.18	0.02*	$\varphi=0.098$
No children	63.5	59.9	64.3	70.7	7.34	0.03*	$\varphi=0.088$
Income more than 40,000 rub/month	7.20	9.40	6.00	4.30	6.11	0.04*	$\varphi=0.073$

Notes:  $\chi^2$  — Pearson’s  $\chi^2$ ; P — p-value; \* —  $p \leq 0.05$ ;  $\varphi$  — Matthews correlation coefficient.

Table 3

## Life goals, values and prospects of youth

Indicator	% of respondents in a cluster				Difference between clusters		
	Total	1	2	3	Criterion	P	Effect size
Life values							
The most important is ... material wealth	19.8%	15.5%	20.1%	29.5%	$\chi^2=13.91$	0.00***	$\varphi=0.167$
Life goals							
... to have a strong family	1.48	1.39	1.49	1.69	F=53.92	0.00***	F=0.267
... to get an education	2.02	1.96	2.02	2.14	F=16.03	0.00***	F=0.154
... to have a lot of money	2.19	2.26	2.17	2.07	F=15.21	0.00***	F=0.151
... to have power, control over others	2.86	2.92	2.81	2.84	F=4.98	0.01**	F=0.107
Accomplishment of life goals							
Nothing depends on me	7.7%	4.3%	7.3%	11.4%	$\chi^2=6.73$	0.04*	$\varphi=0.076$
Life prospects							
I will achieve more than my parents	53.5%	62.3%	51.8%	35.8%	$\chi^2=15.01$	0.00***	$\varphi=0.181$
I look to the future with confidence and optimism	51.2%	73.1%	42.2%	19.0%	$\chi^2=66.81$	0.00***	$\varphi=0.805$
I clearly understand my professional future	57.7%	69.3%	54.0%	38.7%	$\chi^2=17.91$	0.00***	$\varphi=0.216$

Notes:  $\chi^2$  — Pearson's  $\chi^2$ ; F — F-test; P — p-value; \* —  $p \leq 0.05$ ; \*\* —  $p \leq 0.01$ ;  $\varphi$  — Matthews correlation coefficient; f — Cohen's coefficient.

“To have a strong family” from the “Life goals” block ( $f=0.267$ ). The effect size of the remaining indicators in Table 3 is low ( $\varphi=0.1 \div 0.3$ ;  $f=0.1 \div 0.25$ ). The effect size for “Nothing depends on me” from the “Accomplishment of life goals” block is below 0.1.

### Attitudes to global trends and high technology

Data on the participants' attitude to global trends (conscious consumption, ecology, urbanization, animal protection, waste processing) and high technologies (unmanned vehicles, robots and other technical systems controlled by artificial intelligence) are presented in Table 4. Analogous to the previous tables, only those indicators are reported which varied significantly between clusters.

A majority from Cluster 1 support global trends in ecology and animal protection.

Trust in unmanned vehicles and in Russian modern technologies is much higher among respondents with a high level of well-being compared to others. They, and the respondents with an average level of well-being, are more ready to use innovative technologies and work with robots.

Fewer respondents from Cluster 3 are interested in following global trends, most of them don't trust autonomously driven transport technologies or Russian modern technologies in general, and they are less ready to use innovative technologies and work together with robots.

The effect size is average for the indicator “Trust in Russian technologies” from the “High technologies” block ( $f=0.338$ ). Other

Table 4

**Attitudes of young people to global trends and high technology**

Indicator	% of respondents in a cluster				Difference between clusters		
	Total	1	2	Total	Criterion	P	Total
Global trend							
Care for the environment	47.0%	61.1%	46.3%	29.5%	$\chi^2=22.62$	0.00***	$\varphi=0.272$
Animal protection	45.0%	67.1%	53.7%	33.1%	$\chi^2=22.94$	0.00***	$\varphi=0.276$
High technology							
Trust in unmanned vehicles	3.53	3.53	3.56	3.43	F=4.53	0.01**	F=0.105
Trust in Russian technologies	3.64	3.81	3.62	3.27	F=86.16	0.00***	F=0.338
Ready to use innovative tech	3.52	3.58	3.53	3.37	F=11.02	0.00***	F=0.122
Ready to work with robots	4.02	4.10	4.02	3.84	F=16.88	0.00***	F=0.148

Notes:  $\chi^2$  — Pearson's  $\chi^2$ ; F — F-test; P — p-value; \* —  $p \leq 0.05$ ; \*\* —  $p \leq 0.01$ ; \*\*\* —  $p \leq 0.001$ ;  $\varphi$  — Matthews correlation coefficient; f — Cohen's coefficient.

indicators in Table 4 have a low effect sizes ( $\varphi=0,1 \div 0,3$ ;  $f=0,1 \div 0,25$ ).

### Discussion

The study shows that young people aged 18 to 35 living in Central Russia have average and high estimates of well-being.

The results of the cluster analysis speak to the consistency of the well-being scales: for the respondents of one cluster, the values on total well-being, Positive Emotion, Relationships, Engagement, Meaning, Achievement, and additional scales were conditionally allocated to same level (high, average or low).

It was determined that study participants with different levels of well-being also differ in their family status, income level, life position, life goals, and ways to achieve those goals. They perceive their material well-being in different ways, and have diverse attitudes towards modern global trends and technologies.

Among the respondents with the highest values on the well-being scales, there were significantly more officially married young people, living with their families, and having an income level of more than 40,000 rubles per month, sufficient to cover every day needs. In addition, more respondents

from this cluster have an active approach to life, look to the future with optimism and are confident in success in life compared to others. A strong family and a good education are among the most significant life goals for them. More than others, the majority of these respondents are committed to actions aimed at preserving the environment and protecting animals. They have more confidence in modern technologies, including autonomous vehicles and Russian high tech, and are ready to work with robots controlled by artificial intelligence.

Respondents who showed the lowest values of well-being and its components are less likely to have children, be married, live with a family or have an income of more than 40,000 rubles. A significantly larger number of respondents in this group prioritize material well-being, but at the same time, they are not active in achieving their most significant goals — high earnings and gaining power over others. For the most part, they are not confident or optimistic about the development of their situation in the future, they do not show interest in global trends, including the preservation of the environment and the protection of animals. Compared to the others, they trust modern technologies, including those developed in Russia, to a lesser extent.



Respondents who have average values of well-being have characteristics that mainly describe the middle ground between the previous two groups.

The effect size for the difference in socio-demographic characteristics (family status, having children, income) between the clusters is less than 0.1. At the same time, the effect size for differences in psychological characteristics (life goals, values, life prospects, attitudes towards global trends and high technologies) is greater than 0.1. This may indicate that psychological characteristics are more significant for the well-being of Russian youth than socio-demographic indicators.

It is noteworthy that psychological characteristics, especially those such as the desire to have a strong family, confidence and optimism about the future, and trust in Russian technologies, contribute more to psychological well-being than the social effects (see tables 2, 3, 4). These characteristics are essentially related to personal choice; they require a person to make a decision, which is especially important in youth. It is these characteristics that can be nurtured through the influence of society.

### Conclusion

The results of the study indicate that the characteristics of family status, attitudes towards one's future, following global

trends and a trusting attitude towards modern innovative technologies are factors of well-being among Russian youth aged 18—35 years.

Young people who are characterized by a positive perception of future prospects, a focus on a strong family and a good education, a trusting attitude toward the adoption of modern technologies, following global trends in environmental, and a humanistic orientation, have higher values of general well-being and its components compared to those oriented towards increasing material wealth and power over other people, characterized by a pessimistic attitude towards the future, a dissatisfaction with their financial situation, and a low trust in modern technologies.

The results of the study can be used in public programs aimed at improving the well-being of young people.

This study has a number of limitations. First of all, the data were collected only in the Central region of Russia. To properly generalize the results, it is necessary to collect data in other Russian regions. Besides, the study did not consider the personal characteristics of various youth groups or the scope of their professional activities, hobbies, etc. Future research should focus on studying these characteristics to get a detailed picture of the factors and determinants of the well-being of Russian youth.

### References

1. Antonova N.A., Ericyan K.YU., Cvetkova L.A. Sub"ektivnoe blagopoluchie podrostkov i molodezhi: konceptualizaciya i izmerenie [Subjective well-being of adolescents and youth: conceptualization and measurement]. *Izvestiya RGPU im. A.I. Gercena* [Scientific journal of Herzen University], 2018. Vol. 187, pp. 69—78. (In Russ.).
2. Byzova V.M., Perikova E.I. Predstavleniya molodezhi o psihologicheskom blagopoluchii i strategiyah ego dostizheniya [Young people's ideas about psychological well-being and strategies for achieving it]. *Sibirskij psihologicheskij zhurnal* [Siberian Journal of Psychology], 2018. Vol. 70, pp. 118—130. DOI:10.17223/17267080/70/9 (In Russ.).

3. Veselova E.K., Korjova E.Yu., Rudykhina O.V., Anisimova T.V. Social'naya podderzhka kak resurs obespecheniya sub"ektivnogo blagopoluchiya studencheskoj molodezhi [Social Support as a Resource for Ensuring the Subjective Well-being of Students]. *Sotsial'naya psikhologiya i obshchestvo = Social Psychology and Society*, 2021. Vol. 12, no. 1, pp. 44—58. DOI:10.17759/sp.2021120104 (In Russ.).
4. Volkova E.N., Miklyaeva A.V., Horoshih V.V. Sub"ektivnye predposylki psihologicheskogo blagopoluchiya odarenyh podrostkov [Subjective prerequisites for the psychological well-being of gifted adolescents]. *Psihologicheskaya nauka i obrazovanie = Psychological Science and Education*, 2022. Vol. 27, no. 1, pp. 92—103. DOI:10.17759/pse.2022270108 (In Russ.).

5. Galazhinskij E.V., Bohan T.G., Ul'yanic A.L., Terekhina O.V., Shabalovskaya M.V. Svyaz' sub"ektivnogo kachestva zhizni s predstavleniyami o schast'e (cennostnoj obuslovlennost'yu schast'ya, intensivnost'yu motivacii schast'ya i otvetstvennost'yu za sobstvennoe schast'e) u studentcheskoj molodezhi [Relationship between the subjective quality of life and ideas about happiness (value-based conditionality of happiness, intensity of happiness motivation and responsibility for own happiness) among students]. *Science and Education Today*, 2019. Vol. 9, no. 6. DOI:10.15293/2658-6762.1906.02 (In Russ.).
6. Glotova G.A., Karapetyan L.V. Issledovanie parametrov emocional'no-lichnostnogo blagopoluchiya rossijskih studentov [Relationship between the subjective quality of life and ideas about happiness (value-based conditionality of happiness, intensity of happiness motivation and responsibility for own happiness) among students]. *Vestnik Moskovskogo Universiteta. Seriya 14. Psihologiya [The Moscow University Herald. Series 14. Psychology]*, 2018. Vol. 2, pp. 76—88. DOI:10.11621/vsp.2018.02.76 (In Russ.).
7. Golovej L.A., Danilova M.V., Gruzdeva I.A. Psihoemocional'noe blagopoluchie starsheklassnikov v svyazi s gotovnost'yu k professional'nomu samoopredeleniyu [Psycho-emotional well-being of high school students in connection with readiness for professional self-determination]. *Psihologicheskaya nauka i obrazovanie = Psychological science and education*, 2019. Vol. 24, no. 6, pp. 63—73. DOI:10.17759/pse.2019240606 (In Russ.).
8. Isaeva O.M., Akimova A.Yu., Volkova E.N. Oprosnik blagopoluchiya PERMA-Profiler: aprobaciya russkoyazychnoj versii [Well-Being Questionnaire PERMA-Profiler: Approximation of the Russian Version]. *Sotsial'naya psikhologiya i obshchestvo = Social Psychology and Society*, 2022. Vol. 3 (in print). (In Russ.).
9. Osin E.N., Leont'ev D.A. Kratkie russkoyazychnye shkaly diagnostiki sub"ektivnogo blagopoluchiya: psihometricheskie harakteristiki i sravnitel'nyj analiz [Brief Russian-language scales for diagnosing subjective well-being: psychometric characteristics and comparative analysis]. *Monitoring obshchestvennogo mneniya: Ekonomicheskie i social'nye peremny [Monitoring of Public Opinion: Economic and Social Changes Journal]*, 2020. Vol. 1, pp. 117—142. DOI:10.14515/monitoring.2020.1.06 (In Russ.).
10. Samokhvalova A.G., Shipova N.S., Tikhomirova E.V., Vishnevskaya O.N. Psihologicheskoe blagopoluchie sovremennyh studentov: tipologiya i misheni psihologicheskoy pomoshchi [Psychological well-being of modern students: typology and targets of psychological help]. *Konsultativnaya psikhologiya i psikhoterapiya = Counseling Psychology and Psychotherapy*, 2022. Vol. 30, no. 1, pp. 29—48. DOI:10.17759/cpp.2022300103 (In Russ.).
11. Yaremtchuk S.V., Bakina A.V. Sub"ektivnoe blagopoluchie molodezhi i ego vzaimosvyaz' s psihologicheskoy distanciej do ob"ektov social'no-psihologicheskogo prostranstva lichnosti v usloviyah pandemii COVID-19 [Subjective Well-Being in Early Adulthood and Psychological Distance to the Objects of the Socio-Psychological Space during COVID-19 Pandemic]. *Sotsial'naya psikhologiya i obshchestvo = Social Psychology and Society*, 2021. Vol. 12, no. 1, pp. 26—43. DOI:10.17759/sps.2021120103 (In Russ.).
12. Ascenso S., Perkins R., Williamon A. Resounding Meaning: A PERMA Wellbeing Profile of Classical Musicians. *Frontiers in Psychology*, 2018. Vol. 9:1895. DOI:10.3389/fpsyg.2018.01895
13. Butler J., Kern M.L. The PERMA-Profiler: A brief multidimensional measure of flourishing. *International Journal of Wellbeing*, 2016. Vol. 6, no. 3, pp. 1—48. DOI:10.5502/ijw.v6i3.526
14. Bradburn N.M. The measurement of psychological well-being. *Health Goals and Health Indicators: Policy, Planning, and Evaluation*, 2019, pp. 84—94. DOI:10.4324/9780429050886-6
15. Choi S., Suh C., Yang J.W., Ye B.J., Lee C.K., Son B.C., Choi M. Korean translation and validation of the Workplace Positive emotion, Engagement, Relationships, Meaning, and Accomplishment (PERMA)-Profiler. *Annals of Occupational and Environmental Medicine*, 2019. Vol. 31, no. 1. DOI:10.35371/aoem.2019.31.e17
16. Diener E., Kjell O.N.E. Abbreviated Three-Item Versions of the Satisfaction with Life Scale and the Harmony in Life Scale Yield as Strong Psychometric Properties as the Original Scales. *Journal of Personality Assessment*, 2021. Vol. 103(2), pp. 183—194. DOI:10.1080/00223891.2020.1737093
17. Giangrosso B. Psychometric properties of the PERMA-Profiler as hedonic and eudaimonic well-being measure in an Italian context. *Current Psychology*, 2021. Vol. 40, pp. 1175—1184. DOI:10.1007/s12144-018-0040-3
18. Pezirkianidis C., Stalikas A., Lakioti A. et al. Validating a multidimensional measure of wellbeing in Greece: Translation, factor structure, and measurement invariance of the PERMA Profiler. *Current Psychology*, 2021. Vol. 40, pp. 3030—3047. DOI:10.1007/s12144-019-00236-7
19. Ryan J., Curtis R., Olds T., Edney S., Vandelanotte C., Plotnikoff R. et al. Psychometric properties of the PERMA Profiler for measuring wellbeing in Australian adults, 2019. *PLoS ONE* 14 (12):e0225932. DOI:10.1371/journal.pone.0225932
20. Ryff C. Entrepreneurship and eudaimonic well-being: Five venues for new science. *Journal of Business Venturing*, 2019. Vol. 34, no. 4, pp. 646—663.
21. Seligman M. PERMA and the building blocks of well-being. *The Journal of Positive Psychology*, 2018. Vol. 13(4), pp. 333—335. DOI:10.1080/17439760.2018.1437466

22. Sheldon K.M., Osin E.N., Gordeeva T.O., Suchkov D.D., Sychev O.A. Evaluating the dimensionality of self-determination theory's relative autonomy continuum. *Personality and Social Psychology Bulletin*, 2017. Vol. 43, no. 9, pp. 1215—1238. DOI:10.1177/0146167217711915
23. Umucu E., Wu. J.R., Sanchez J., Brooks J.M., Chiu C.Y., Tu W.M., Chan F. Psychometric validation of the PERMA-profiler as a well-being measure for student veterans. *Journal of American College Health*, 2020. Vol. 6, no. 3, pp. 271—277. DOI:10.1080/07448481.2018.1546182

### Литература

1. Антонова Н.А., Ерицян К.Ю., Цветкова Л.А. Субъективное благополучие подростков и молодежи: концептуализация и измерение // Известия РГПУ им. А.И. Герцена. 2018. № 187. С. 69—78.
2. Бызова В.М., Перикова Е.И. Представления молодежи о психологическом благополучии и стратегиях его достижения [Электронный ресурс] // Сибирский психологический журнал. 2018. № 70. С. 118—130. DOI:10.17223/17267080/70/9
3. Веселова Е.К., Коржова Е.Ю., Рудыхина О.В., Анисимова Т.В. Социальная поддержка как ресурс обеспечения субъективного благополучия студенческой молодежи // Социальная психология и общество. 2021. Том 12. № 1. С. 44—58. DOI:10.17759/sps.2021120104
4. Волкова Е.Н., Микляева А.В., Хороших В.В. Субъективные предпосылки психологического благополучия одаренных подростков [Электронный ресурс] // Психологическая наука и образование. 2022. Том 27. № 1. С. 92—103. DOI:10.17759/pse.2022270108
5. Галажинский Э.В., Бохан Т.Г., Ульянич А.Л., Терехина О.В., Шабаловская М.В. Связь субъективного качества жизни с представлениями о счастье (ценностной обусловленностью счастья, интенсивностью мотивации счастья и ответственностью за собственное счастье) у студенческой молодежи [Электронный ресурс] // Science for Education Today. 2019. № 9(6). DOI:10.15293/2658-6762.1906.02
6. Глотова Г.А., Карапетян Л.В. Исследование параметров эмоционально-личностного благополучия российских студентов [Электронный ресурс] // Вестник Московского Университета. Серия 14. Психология. 2018. № 2. С. 76—88. DOI:10.11621/vsp.2018.02.76
7. Головей Л.А., Данилова М.В., Груздева И.А. Психологическое благополучие старшеклассников в связи с готовностью к профессиональному самоопределению [Электронный ресурс] // Психологическая наука и образование. 2019. Том 24. № 6. С. 63—73. DOI:10.17759/pse.2019240606
8. Исаева О.М., Акимова А.Ю., Волкова Е.Н. Опросник благополучия PERMA-Profiler: апробация русскоязычной версии // Социальная психология и общество. 2022. № 3 (в печати).
9. Осин Е.Н., Леонтьев Д.А. Краткие русскоязычные шкалы диагностики субъективного благополучия: психометрические характеристики и сравнительный анализ [Электронный ресурс] // Мониторинг общественного мнения: Экономические и социальные перемены. 2020. № 1. С. 117—142. DOI:10.14515/monitoring.2020.1.06
10. Самохвалова А.Г., Шипова Н.С., Тихомирова Е.В., Вишневская О.Н. Психологическое благополучие современных студентов: типология и мишени психологической помощи // Консультативная психология и психотерапия. 2022. № 30(1). С. 29—48. DOI:10.17759/cpp.2022300103
11. Яремчук С.В., Бакина А.В. Субъективное благополучие молодежи и его взаимосвязь с психологической дистанцией до объектов социально-психологического пространства личности в условиях пандемии COVID-19 // Социальная психология и общество. 2021. № 12(1). С. 26—43. DOI:10.17759/sps.2021120103
12. Ascenso S., Perkins R., Williamon A. Resounding Meaning: A PERMA Wellbeing Profile of Classical Musicians [Электронный ресурс] // Frontiers in Psychology. 2018. Vol. 9. DOI:10.3389/fpsyg.2018.01895
13. Butler J., Kern M.L. The PERMA-Profiler: A brief multidimensional measure of flourishing [Электронный ресурс] // International Journal of Wellbeing. 2016. Vol. 6(3). P. 1—48. DOI:10.5502/ijw.v6i3.526
14. Bradburn N.M. The measurement of psychological well-being // Health Goals and Health Indicators: Policy, Planning, and Evaluation. 2019. P. 84—94. DOI:10.4324/9780429050886-6
15. Choi S., Suh C., Yang J.W., Ye B.J., Lee C.K., Son B.C., Choi M. Korean translation and validation of the Workplace Positive emotion, Engagement, Relationships, Meaning, and Accomplishment (PERMA)-Profiler [Электронный ресурс] // Annals of Occupational and Environmental Medicine. 2019. Vol. 31(1). DOI:10.35371/aoem.2019.31.e17
16. Diener E., Kjell O.N.E. Abbreviated Three-Item Versions of the Satisfaction with Life Scale and the Harmony in Life Scale Yield as Strong Psychometric Properties as the Original Scales // Journal of Personality Assessment. 2021. Vol. 103(2). P. 183—194. DOI:10.1080/00223891.2020.1737093
17. Giangrasso B. Psychometric properties of the PERMA-Profiler as hedonic and eudaimonic well-being measure in an Italian context // Current Psychology. 2021. Vol. 40. P. 1175—1184. DOI:10.1007/s12144-018-0040-3
18. Pezirkianidis C., Stalikas A., Lakioti A. et al. Validating a multidimensional measure of wellbeing in

Greece: Translation, factor structure, and measurement invariance of the PERMA Profiler [Электронный ресурс] // *Current Psychology*. 2021. Vol. 40. P. 3030—3047. DOI:10.1007/s12144-019-00236-7

19. *Ryan J., Curtis R., Olds T., Edney S., Vandelanotte C., Plotnikoff R. et al.* Psychometric properties of the PERMA Profiler for measuring wellbeing in Australian adults. 2019. *PLoS ONE* 14 (12):e0225932. DOI:10.1371/journal.pone.0225932

20. *Ryff C.* Entrepreneurship and eudaimonic well-being: Five venues for new science // *Journal of Business Venturing*. 2019. Vol. 34(4). P. 646—663.

21. *Seligman M.* PERMA and the building blocks of well-being // *The Journal of Positive Psychology*. 2018.

Vol. 13(4). P. 333—335. DOI:10.1080/17439760.2018.1437466

22. *Sheldon K.M., Osin E.N., Gordeeva T.O., Suchkov D.D., Sychev O.A.* Evaluating the dimensionality of self-determination theory's relative autonomy continuum [Электронный ресурс] // *Personality and Social Psychology Bulletin*. 2017. Vol. 43(9). P. 1215—1238. DOI:10.1177/0146167217711915

23. *Umucu E., Wu J.-R., Sanchez J., Brooks J.M., Chiu C.-Y., Tu W.-M., Chan F.* Psychometric validation of the PERMA-profiler as a well-being measure for student veterans [Электронный ресурс] // *Journal of American College Health*. 2020. Vol. 6(3). P. 271—277. DOI:10.1080/07448481.2018.1546182

### **Information about the authors**

*Oksana M. Isaeva*, PhD in Psychology, Associate Professor, Department of Organizational Psychology, National Research University Higher School of Economics, Nizhny Novgorod, Russia, ORCID: <https://orcid.org/0000-0002-0926-5182>, e-mail: [oisaeva@hse.ru](mailto:oisaeva@hse.ru)

*Anna Yu. Akimova*, PhD in Psychology, Associate Professor, Department of Organizational Psychology, National Research University Higher School of Economics, Nizhny Novgorod, Russia, ORCID: <https://orcid.org/0000-0002-5750-8409>, e-mail: [anna\\_ak@rambler.ru](mailto:anna_ak@rambler.ru)

*Elena N. Volkova*, Doctor of Science, Professor of Psychology, Head of the Scientific and Educational Center “Psychology of a Gifted Teenager”, Nizhny Novgorod State Pedagogical University, Nizhny Novgorod, Russia, ORCID: <https://orcid.org/0000-0001-9667-4752>, e-mail: [envolkova@yandex.ru](mailto:envolkova@yandex.ru)

### **Информация об авторах**

*Исаева Оксана Михайловна*, кандидат психологических наук, доцент кафедры организационной психологии, ФГАОУ ВО «Национальный исследовательский университет «Высшая школа экономики» (ФГАОУ ВО НИУ ВШЭ), г. Нижний Новгород, Российская Федерация, ORCID: <https://orcid.org/0000-0002-0926-5182>, e-mail: [oisaeva@hse.ru](mailto:oisaeva@hse.ru)

*Акимова Анна Юрьевна*, кандидат психологических наук, доцент кафедры организационной психологии, ФГАОУ ВО «Национальный исследовательский университет «Высшая школа экономики» (ФГАОУ ВО НИУ ВШЭ), г. Нижний Новгород, Российская Федерация, ORCID: <https://orcid.org/0000-0002-5750-8409>, e-mail: [anna\\_ak@rambler.ru](mailto:anna_ak@rambler.ru)

*Волкова Елена Николаевна*, доктор психологических наук, профессор, заведующая научно-образовательным центром «Психология одаренного подростка», ФГБОУ ВО «Нижегородский государственный педагогический университет им. К. Минина» (ФГБОУ ВО «Мининский университет»), г. Нижний Новгород, Российская Федерация, ORCID: <https://orcid.org/0000-0001-9667-4752>, e-mail: [envolkova@yandex.ru](mailto:envolkova@yandex.ru)

Получена 22.10.2021

Received 22.10.2021

Принята в печать 30.06.2022

Accepted 30.06.2022

# Attributing Weight to Virtual Objects in Preschoolers

**Svetlana G. Krylova**

Ural State Pedagogical University, Yekaterinburg, Russia

ORCID: <https://orcid.org/0000-0002-2089-7885>, e-mail: [s\\_g\\_krylova@mail.ru](mailto:s_g_krylova@mail.ru)

**Yuliya E. Vodyakha**

Ural State Pedagogical University, Yekaterinburg, Russia

ORCID: <https://orcid.org/0000-0002-6795-9174>, e-mail: [jullyaa@ya.ru](mailto:jullyaa@ya.ru)

Modern education is undergoing a process of digital transformation at all levels, including preschool. The psychologically founded use of digital technologies makes it relevant to study the child's ideas about the objects of the digital environment (virtual objects). This empirical study is aimed to test two hypotheses: 1) Preschoolers attribute the quality of weight to virtual objects; 2) Preschoolers perceive virtual objects as light-weighted. 53 children, 3.5 to 5 years old, participated in this study ( $M=4.3$ ;  $SD=0.41$ ). The study includes experimental technique (H. Kloos, E.L. Amazeen), assessed children's perception of weight based on their interaction with these objects without verbal self-report. The weight was operationalized through the location on a hill model (slope length — 40 cm) of two real objects (lightweight — 27 g, heavy — 170 g) and a virtual object, which was previously "lifted on the shelf" on a tablet PC screen. 92.5% of participants designated a specific place on the hill for the virtual object, suggesting they attributed weight to it. For 70.4% of children, the placement of a virtual object ( $Me=40$  cm) does not significantly differ ( $T_{emp}=13.5$   $p=0.933$ ) from the placement of a light real object ( $Me=40$ cm). For 18.2% of children, the placement of a virtual object ( $Me=14.5$ cm) does not significantly differ ( $T_{emp}=11.5$   $p=0.673$ ) from the placement of a heavy real object ( $Me=12.25$ cm). Further research is necessary to better understand factors contributing to preschoolers' perception of virtual objects weight.

**Keywords:** weight perception, touchscreen, virtual object, attribution, preschoolers.

---

**Funding.** The reported study was funded by Russian Foundation for Basic Research (RFBR), project number 20-013-00308 A.

**Acknowledgements.** The authors are grateful to A.I. Gazeikina for the design of computer applications.

**For citation:** Krylova S.G., Vodyakha Ju.E. Attributing Weight to Virtual Objects in Preschoolers. *Psikhologicheskaya nauka i obrazovanie = Psychological Science and Education*, 2022. Vol. 27, no. 4, pp. 36—45. DOI: <https://doi.org/10.17759/pse.2022270404> (In Russ.).

# Приписывание веса виртуальным объектам детьми дошкольного возраста

**Крылова С.Г.**

ФГБОУ ВО «Уральский государственный педагогический университет»  
(ФГБОУ ВО УрГПУ), г. Екатеринбург, Российская Федерация  
ORCID: <https://orcid.org/0000-0002-2089-7885>, e-mail: [s\\_g\\_krylova@mail.ru](mailto:s_g_krylova@mail.ru)

**Водяха Ю.Е.**

ФГБОУ ВО «Уральский государственный педагогический университет»  
(ФГБОУ ВО УрГПУ), г. Екатеринбург, Российская Федерация  
ORCID: <https://orcid.org/0000-0002-6795-9174>, e-mail: [jullyaa@ya.ru](mailto:jullyaa@ya.ru)

Представленная статья основана на актуальных идеях о том, что современное образование переживает процесс цифровой трансформации на всех уровнях, включая дошкольный. Авторы считают, что психологически обоснованное использование цифровых технологий делает значимым исследование представлений ребенка об объектах цифровой среды (виртуальных объектах). Эмпирическое исследование было направлено на проверку двух гипотез: 1) дошкольники приписывают виртуальным объектам такое качество, как вес; 2) дошкольники идентифицируют виртуальные объекты как «легкие». В исследовании приняли участие 53 ребенка в возрасте от 3,5 до 5 лет ( $M=4,3$ ;  $SD=0,41$ ). В качестве инструмента работы применялся методический прием (Х. Клоос, Э.Л. Амазин), позволяющий выявить представления детей о весе предметов на основе результатов действий с этими предметами без словесного самоотчета. Вес был операционализирован через расположение на модели холма (длина — 40 см) двух реальных объектов (легкий — 27 грамм, тяжелый — 170 грамм) и виртуального объекта, с которым дети предварительно осуществляли действие «поднятие на полку» на экране планшетного компьютера. 92,5% детей указали определенное место расположения для виртуального объекта, то есть приписывали ему наличие веса. У 70,4% детей расположение виртуального объекта ( $M=40$  см) значимо не отличается ( $T_{\text{эмп}}=13,5$ ,  $p=0,933$ ) от расположения реального легкого объекта ( $M=40$  см), у 18,2% дошкольников расположение виртуального объекта ( $M=14,5$  см) значимо не отличается ( $T_{\text{эмп}}=11,5$ ,  $p=0,673$ ) от расположения реального тяжелого объекта ( $M=12,25$  см). Отмечается, что необходима проверка дополнительных гипотез о факторах, влияющих на представление дошкольников о весе виртуальных объектов.

**Ключевые слова:** восприятие веса, тачскрин, виртуальный объект, приписывание, дошкольники.

**Финансирование.** Исследование выполнено при финансовой поддержке Российского фонда фундаментальных исследований (РФФИ) в рамках научного проекта № 20-013-00308 А.

**Благодарности.** Авторы благодарят за помощь в разработке компьютерных приложений А.И. Газейкину.

**Для цитаты:** Крылова С.Г., Водяха Ю.Е. Приписывание веса виртуальным объектам детьми дошкольного возраста // Психологическая наука и образование. 2022. Том 27. № 4. С. 36—45. DOI: <https://doi.org/10.17759/pse.2022270404>

## Introduction

The objective to update the preschool education system with new information technologies was formulated by the Ministry of Education of the Russian Federation over 20 years ago. The prospects of preschool education in the digital era are still of interest and are widely discussed by the scientific community [3; 5]. The psychologically informed use of digital devices requires an understanding of the nuances of children's perception of objects in a digital environment (virtual objects), and of the way it may differ from their perception of real life objects.

Various gaming applications are advertised as promoting development. This implies that the abilities, skills, and knowledge acquired using these applications are transferable and can be utilized to interact with real life objects. Such transfer is an important component of the learning process. The question is, to which extent the differences in perception of virtual and real objects can affect the quality of the transfer [4; 16].

Our recent study tested the hypothesis that children perceive virtual objects on a tablet PC screen as three-dimensional even though they interact with these objects by moving their fingers across a two-dimensional screen surface [10]. According to our results, 91% of children 4 to 6 years old perceive virtual objects as three-dimensional. At the same time, children miss out on shape details of virtual objects significantly more often than when they interact with real objects visually and visually-haptically.

Another property of virtual objects presumably perceived by children is weight. Unlike shape/size, weight cannot be directly perceived based on visual information. Unless deliberately provided with haptic feedback devices, haptic information about virtual objects is unavailable, driving the interest towards research on the perception of virtual objects' weight [8].

The study of formation of the concept of "weight" in children was initiated by E.J. Gibson [6] and J. Piaget [13]. Analysis of the related scientific publications leads to the following conclusions: 1) until a certain age, children do not differentiate between size and weight [6; 13]; 2) during development, the concepts of size, weight, and density undergo differentiation [15]; 3) felt weight is the core of the concept of weight in children under 7 years old [15]; 4) children of 8 to 9 years old conceptualize weight as a fundamental property of matter independent of feelings [15]; 5) the lower age limit for the formation of the concept of weight is 3—4 years [1; 15], however, infants are able to apply information about the relative weight of objects to their actions [7].

Since it is difficult for children under 7 years old to verbalize the properties of an object that is experienced as "heavy", there are methodological issues in studying weight perception in children of early and preschool age [1]. In order to eliminate lexical restrictions, a number of techniques free of verbal self-reporting have been proposed [9; 15]. One of them is called a "nonverbal weight task". It involves the creation of a game scenario where a child is asked to imagine to which observable consequences the interaction of objects of different weights with other game objects will lead. The advantage of this technique lies in shifting the focus from a visual, not directly observable property (weight) to clearly observable changes, as well as in eliminating the need for a child to use the word "heaviness" (weight, mass) which may be absent from his active vocabulary [9; 15].

In the scientific literature, virtual objects often model real objects rather than represent an independent class of objects with unique features. Thus, this research is exploratory in nature and is aimed to test two hypotheses: 1) Preschoolers attribute the

quality of weight to virtual objects; 2) Preschoolers perceive virtual objects as light.

The first hypothesis was formulated from an experience-based learning approach. According to it, interaction with objects leads to the formation of associations between distinct properties of these objects (size, material, density, weight, category). These associations underlie expectations that allow the prediction of the weight of an unfamiliar object based on one or several known properties of it. Visual similarity between virtual objects and their real prototypes forms expectations about the weight of virtual objects on the basis of their perceived size and shape, similar to the perception of the weight of real objects associated with these properties.

The second hypothesis relies on the notion that estimates of an object's weight are linked to dynamic characteristics of interactions with these objects: objects that require less effort to move are seen as lighter objects. Movement of virtual objects across the tablet PC screen is carried out by sliding finger movements associated with light weight. Since our hypotheses are meaningful

related to the type of hypotheses about the presence of the phenomenon, the research plan did not include monitoring of object movement characteristics. Testing the causal hypothesis about the characteristics of movement as a factor in the perception of the weight of a virtual object represents one promising future research direction.

### Subjects and procedure

53 children, 3.5 to 5 years old, participated in the present study ( $M=4.3$ ;  $SD=0.41$ ). The research procedure relies on a technique developed to study the "size-weight" illusion in preschoolers [9]. For the procedure, a schematic drawing of a hill with a house on top of it was made (Fig. 1).

Additionally, a computer application modeling a "lift onto a shelf" action was developed as most informative for estimating the weight of an object compared to other actions (Fig. 2). The application runs on the Android operating system. All the object models were created using the Blender three-dimensional computer graphics editor and imported into an application, written in Java using the LibGDX framework. The ap-



Fig. 1. A drawing of a hill used to locate objects of different weights (the flag marks the position indicated by the child)



plication was installed on a Huawei tablet computer (model AGS2-L09).



Fig. 2. A photo of the tablet PC screen with the initial location of the virtual cube in relation to the shelf

The study was conducted as individual play sessions under the supervision of a psychologist from a preschool educational institution. The experimental procedure consisted of 4 stages.

1. *Explanation and demonstration.* Three polymer clay balls (“apples”) with a diameter of 3.5 cm and a weight of 6, 40, and 83 grams (light, medium, and heavy) were made for the experiment. The psychologist tells a child a fairy tale about a mouse that lives in a house on a high hill. To stock up for the winter, she has to carry apples to the house on the hill. The psychologist hands the child the “heavy” ball and explains that if an apple were really heavy, it would be hard for the mouse to carry it to the top of the hill and she would have to take a rest. As a resting site, the psychologist points to a place near the base of the hill (5 cm). Similarly, for an apple of a medium weight, the resting site is located in the middle of the hill (20 cm), and for a light apple it is on the top of the hill (40 cm).

2. *Checking understanding of information about weight.* The psychologist gives the child the heavy and then the light “apple” and asks the child to show where the mouse would take a rest.

3. *The main stage with real objects.* The psychologist presents a new fairy tale scenario (a mouse that is carrying three pieces of cheese to her house). As “pieces of cheese”, 4 polymer clay cubes with a length of 4 cm are used. They vary in weight: light (27 g), medium (80 g), and heavy (170 g). At the beginning of this and the following experimental stages, the psychologist hands the child a cube of a medium weight and shows that the mouse carrying this cube would stop for a rest in the middle of the hill (20 cm). Then the child is given a heavy and a light cube. The psychologist asks the child to point to the place on the hill where the mouse would stop to rest. As a control for the sequence effect, half the participants (27 children) were presented with the light cube prior to the heavy cube, and the other half (26 children) were presented with the heavy cube prior to the light cube.

4. *The main stage with virtual objects.* The psychologist shows the child a cube and a shelf on a tablet PC screen and explains that this “piece of cheese” (a cube with a length of 1.7 cm) was sent to the mouse by mail. The child is asked to place the cube on the shelf, moving it across the tablet PC screen. The child completes the “lift the cube onto the shelf” action 2—3 times. Then, the psychologist asks the child to point to the place on the hill where the mouse would stop to rest when she would be carrying home this “parcel of cheese”.

The results of the third and fourth main stages were represented by three indicators: the placement of the heavy and the light real cubes, and the placement of the virtual cube (the distance from the hill base, cm). The placement of the heavy and the light real cubes are considered to be correlates of the child’s weight estimates for these objects: heavier objects were placed closer to the hill base, while lighter objects were placed closer to the hilltop. The placement indicators of the light and the heavy real cubes were used as reference points

to quantify the child’s weight estimate of the virtual cube. Statistical data analysis was carried out in Statistica 6.0.

### Results

During the processing of the data array (53 children), the results of 5 children were excluded as there was no significant difference between their placement of the heavy and the light real cubes, together with the results of 4 other children who could not answer the question about the placement of the virtual cube (“I don’t know”).

The results from the rest of the children were sorted into three groups based on the placement of the virtual cube in relation to the real cubes: group 1 (“light”) — closer to the light cube (31 participants), group 2 (“heavy”) — closer to the heavy cube (8 participants), group 3 (“uncertain”) — in between of the light and the heavy cube (5 participants) (Table 1, fig. 3). To assign the value of the placement of the virtual cube to a certain group, rather than an objective scale (0—40 cm), subjective scales were used, determined by the individual values of the placements of the light and heavy real cubes for each child.

Table 1

**Placement of the real and the virtual cubes as indicators of weight estimates**

Group	Number of children	Weight-based identification of the virtual cube	Real cubes				Virtual cube (V)	
			Heavy (RH)		Light (RL)		Range (cm)	Median (cm)
			Range (cm)	Median (cm)	Range (cm)	Median (cm)		
1	31 (70.4%)	light	0—30	9	21—40	40	33—40	40
2	8 (18.2%)	heavy	4—30	12.25	40—40	40	5—28	14.5
3	5 (11.4%)	uncertain	0—14	9	40—40	40	22—27	23

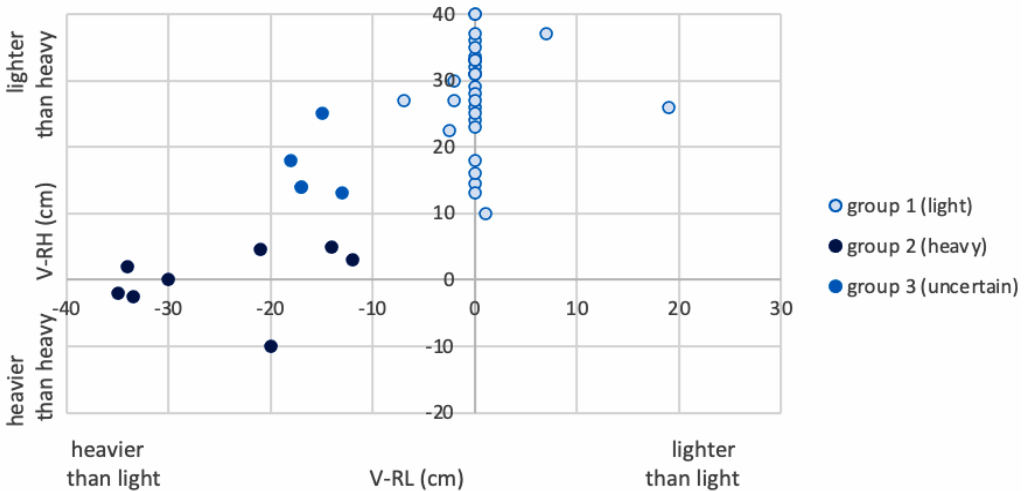


Fig. 3. Individual indicators of the virtual cube placement in relation to the light and the heavy real cubes

Based on an analysis of the results, we confirmed our first hypothesis. A child would not be able to accomplish the task of choosing a specific location on the hill for the virtual object presented without perceiving it as having weight. Of 53 participants, 49 (92.5%) accomplished the task, implying that children attribute the property of weight to virtual objects.

To test the second hypothesis, the distribution of the frequency of choice of position for the virtual cube was compared to a uniform distribution using Pearson's chi-squared test. The resulting value  $\chi^2_{emp}=27.59$  ( $p \leq 0.001$ ) shows statistically significant discrepancies between the distributions. Thus, the choice by the majority of the children of a position for the virtual cube that is close to the position of the light real cube is not accidental. It suggests that the virtual cube is identified as a light cube.

For both of groups 1 and 2 ("light" and "heavy", respectively), the reliability of the shift in the value of the position of the virtual cube in relation to the position of the real cubes was assessed using the Wilcoxon T-test. For 70.4% (group 1) of children, the placement of a virtual object ( $Me=40cm$ ) does not significantly differ ( $T_{emp}=13.5$   $p=0.933$ ) from the placement of a light real object ( $Me=40cm$ ). For 18.2% of children (group 2), the placement of the virtual object ( $Me=14.5cm$ ) does not significantly differ ( $T_{emp}=11.5$   $p=0.673$ ) from the placement of a heavy real object ( $Me=12.25cm$ ).

## Discussion

Kloos and Amazeen developed a research technique for identifying a real object's weight without verbal self-report [9]. It enables us to study the ability of preschoolers to compare different weight gradations in the perception of real and virtual objects.

Virtual object manipulation lacks realistic haptic feedback [8]. Nevertheless, preschoolers tend to attribute to virtual objects

those properties of real objects that can be directly perceived through haptic feedback. Likely, the transfer of the properties of real objects to virtual ones facilitates a child's exploration of virtual reality. The results of our study of weight attribution to virtual objects in preschoolers are consistent with the results of the study of personal 'theories' about mass that examines the understanding of mass of drawn objects in 4-to 6-year-old children [12].

Our results are also in agreement with the conclusions of Russian [1; 2] and foreign [11; 14] psychologists regarding the role of active sensorimotor interactions with real objects for the development of a child's perceptual abilities, as well as for the ability to predict the physical characteristics of visually perceived objects. In addition, we showed that the experience obtained as a result of a child's interaction with real objects (memory-based representations about the properties of objects) can be transferred to the perception of virtual objects.

The main result of this study was that the specifics of weight attribution to virtual objects by preschoolers were identified. Taking our previous study [10] into account, we propose that children perceive virtual objects as three-dimensional (often missing out on shape details) and possessing the property of weight (often perceived as light).

Besides the small sample size, the limitations of this study lie in the differences between the conditions for presenting the real and the virtual objects, such as the objects' size and movements when interacting with them. The experimental procedure does not provide an exact quantitative correlation of the positions of the real and the virtual objects but rather defines the general rule: the bottom part of the hill is for the heavier objects, the top part is for the lighter ones. Nonetheless, the differences noted in object presentation may cause reduced validity.

Given the associations between weight and other sensory features [18], further research should be aimed at investigating factors determining the perceived weight of virtual objects, such as movement characteristics when interacting with these objects (less force applied/ more force applied), and visually perceived characteristics (size, density).

## Conclusions

1. The results of this study support our hypothesis that preschoolers attribute weight to virtual objects. Weight attribution may be shaped by the association of the visually perceived properties of real objects and their weight, formed during interactions with these objects, as well as by the visual similarity of virtual objects with their real prototypes,

which simplifies the perceptual transfer of real objects' properties to virtual objects.

2. Preschoolers identify virtual objects as light significantly more often than as heavy. We speculate that the characteristics of a virtual object's movement during interaction with it is one of the factors shaping the weight perception of such an object. To test this, kinematic the characteristics of the virtual object movement have to be monitored together with the alternation in the perceived weight of the virtual object (for example, using visual delay [17]).

3. The present research belongs to the field studying the cognition of virtual objects as a unique class of objects, and draws attention to the necessity to expand the scope of interest in cognitive psychology beyond physical reality.

## References

1. Belous N.G. Kharakter deistviya detei doshkol'nogo vozrasta pri sopostavlenii predmetov po ikh tyazhesti [The nature of the action of preschool children when comparing objects by their severity]. In Z.A. Mikhailova, R.L. Nepomnyashchaya (ed.). *Teoriya i metodika razvitiya elementarnykh matematicheskikh predstavlenii u doshkol'nikov: V 6 t. T. 4 [Theory and methodology for the development of elementary mathematical concepts in preschoolers: in 6 vol. Vol. 4]*. Saint-Petersburg: LNPК «ARK» Publ., 1994, pp. 40—44. (In Russ.).
2. Zaporozhets A.V. Psikhologiya deistviya [The psychology of action]. Moscow: Moskovskii psikhologosotsial'nyi institut Publ., Voronezh: NPO «MODEK» Publ., 2000. 736 p. (In Russ.).
3. Komarova I.I. Budushchee doshkol'nogo obrazovaniya v epokhu tsifrovizatsii [The future of preschool education in the digital age]. *Sovremennoe doshkol'noe obrazovanie [Modern preschool education]*, 2018. no. 8, pp. 16—25. DOI:10.24411/1997-9657-2018-10032 (In Russ.).
4. Smirnova Ye.O., Matushkina N.Yu., Smirnova S. Yu. Virtual'naya real'nost' v rannem i doshkol'nom detstve [Virtual reality in early and preschool years]. *Psikhologicheskaya nauka i obrazovaniye = Psychological science and education*, 2018. Vol. 23, no. 3, pp. 42—53. DOI:10.17759/pse.2018230304
5. Smirnova S.Yu., Klopotova Ye.Ye., Rubtsova O.V., Sorokova M.G. Osobennosti ispol'zovaniya tsifrovyykh ustroystv det'mi doshkol'nogo vozrasta: novyye sotsiokul'turnyy kontekst [Features of the use of digital devices by preschool children: a new sociocultural context]. *Sotsial'naya psikhologiya i obshchestvo =*

- Social psychology and society*, 2022. Vol. 13, no. 2, pp. 177—193. DOI:10.17759/sps.2022130212
6. Gibson E.J. Principles of perceptual learning and development. New York: Appleton Century Crofts Publ., 1969. 537 p. DOI:10.1126/science.168.3934.958
7. Hauf P., Paulus M., Baillargeon R. Infants Use Compression Information to Infer Objects' Weights: Examining Cognition, Exploration, and Prospective Action in a Preferential-Reaching Task. *Child Development*, 2012. Vol. 83, no. 6, pp. 1978—1995. DOI:10.1111/j.1467-8624.2012.01824.x
8. Huang Y., Yao K., Li J., Li D., Jia H., Liu Y., Yiu C.K., Park W., Yu X. Recent advances in multi-mode haptic feedback technologies towards wearable interfaces. *Materials Today Physics*, 2022. Vol. 2. 100602. DOI:10.1016/j.mtphys.2021.100602
9. Kloos H., Amazeen E.L. Perceiving heaviness by dynamic touch: An investigation of the size-weight illusion in preschoolers. *British Journal of Developmental Psychology*, 2002. Vol. 20, no. 2, pp. 171—183. DOI:10.1348/026151002166398
10. Krylova S.G., Vodyaha Yu.E. An Experimental Study of Perception by Preschoolers: The Computer Models of Real Objects as Three-Dimensional on the Screens of Touchscreen Devices. *Proceedings of the International Scientific Conference «Digitalization of Education: History, Trends and Prospects» (DETP 2020)*: Atlantis Press, 2020, pp. 424—431. DOI:10.2991/assehr.k.200509.077
11. Lozada M., Carro N. Embodied Action Improves Cognition in Children: Evidence from a Study Based on Piagetian Conservation Tasks. *Frontiers in Psychology*, 2016. Vol. 7. DOI:10.3389/fpsyg.2016.00393

12. MacDonald A. Heavy Thinking: Young Children's Theorising About Mass analyses young children's thinking about the concept of mass. *Australian Primary Mathematics Classroom*, 2010. Vol. 15, no. 4, pp. 4—8. Available at: <https://files.eric.ed.gov/fulltext/EJ906679.pdf> (Accessed 12.11.2021).
13. Piaget J., Inhelder B. The child's construction of quantities: conservation and atomism. London: Routledge and Kegan Paul Publ., 1974. 285 p.
14. Rosenbaum D.A., Chapman K.M., Weigelt M., Weiss D.J., van der Wel R. Cognition, action, and object manipulation. *Psychological Bulletin*, 2012. Vol. 138, no. 5, pp. 924—946. DOI:10.1037/a0027839
15. Smith C., Carey S., Wisner M. On differentiation: A case study of the development of the concepts of size, weight, and density. *Cognition*, 1985. Vol. 21, no. 3, pp. 177—237. DOI:10.1016/0010-0277(85)90025-3
16. Troseth G.L., Flores I., Stuckelman Z.D. When representation becomes reality: Interactive digital media and symbolic development. In J.B. Benson (ed.). *Advances in child development and behavior*. Cambridge, Massachusetts: Elsevier Academic Press, 2019, pp. 65—108. DOI:10.1016/bs.acdb.2018.12.001
17. van Polanen V., Tibold R., Nuruki A., Davare M. Visual delay affects force scaling and weight perception during object lifting in virtual reality. *Journal of Neurophysiology*, 2019. Vol. 121, no. 4, pp. 1398—1409. DOI:10.1152/jn.00396.2018
18. Walker P., Scallion G., Francis B. Cross-Sensory Correspondences: Heaviness is Dark and Low-Pitched. *Perception*, 2016. Vol. 46, no. 7, pp. 772—792. DOI:10.1177/0301006616684369
9. Kloos H., Amazeen E.L. Perceiving heaviness by dynamic touch: An investigation of the size-weight illusion in preschoolers // *British Journal of Developmental Psychology*. 2002. Vol. 20(2). P. 171—183. DOI:10.1348/026151002166398
10. Krylova S.G., Vodyaha Yu.E. An Experimental Study of Perception by Preschoolers: The Computer Models of Real Objects as Three-Dimensional on the Screens of Touchscreen Devices // *Proceedings of the International Scientific Conference «Digitalization of Education: History, Trends and Prospects» (DETP 2020)*: Atlantis Press, 2020. P. 424—431. DOI:10.2991/assehr.k.200509.077
11. Lozada M., Carro N. Embodied Action Improves Cognition in Children: Evidence from a Study Based on Piagetian Conservation Tasks // *Frontiers in Psychology*. 2016. Vol. 7. DOI:10.3389/fpsyg.2016.00393
12. MacDonald A. Heavy Thinking: Young Children's Theorising About Mass analyses young children's thinking about the concept of mass // *Australian Primary Mathematics Classroom*. 2010. Vol. 15. № 4. P. 4—8. URL: <https://files.eric.ed.gov/fulltext/EJ906679.pdf> (дата обращения: 12.11.2021).
13. Piaget J., Inhelder B. The child's construction of quantities: Conservation and atomism. London: Routledge and Kegan Paul, 1974. 285 p.
14. Rosenbaum D.A., Chapman K.M., Weigelt M., Weiss D.J., van der Wel R. Cognition, action, and object manipulation // *Psychological Bulletin*. 2012. Vol. 138. № 5. P. 924—946. DOI:10.1037/a0027839
15. Smith C., Carey S., Wisner M. On differentiation: A case study of the development of the concepts of size, weight, and density // *Cognition*. 1985. Vol. 21. № 3. P. 177—237. DOI:10.1016/0010-0277(85)90025-3
16. Troseth G.L., Flores I., Stuckelman Z.D. When representation becomes reality: Interactive digital media and symbolic development // *Advances in child development and behavior* / In J.B. Benson

## Литература

1. Белоус Н.Г. Характер действия детей дошкольного возраста при сопоставлении предметов по их тяжести // Теория и методика развития элементарных математических представлений у дошкольников: В 6 ч. Ч. 4. / Под ред. З.А. Михайловой, Р.Л. Непомнящей. СПб.: ЛНПК «АРК», 1994. С. 40—44.

2. Запорожец А.В. Психология действия. М.: Изд-во Московского психолого-социального института; Воронеж: Изд-во ИПО «МОДЭК», 2000. 736 с.

3. Комарова И.И. Будущее дошкольного образования в эпоху цифровизации // Современное дошкольное образование. 2018. № 8. С. 16—25. DOI:10.24411/1997-9657-2018-10032

4. Смирнова Е.О., Матушкина Н.Ю., Смирнова С.Ю. Виртуальная реальность в раннем и дошкольном детстве // Психологическая наука и образование. 2018. Том 23. № 3. С. 42—53. DOI:10.17759/pse.2018230304

5. Смирнова С.Ю., Клопотова Е.Е., Рубцова О.В., Сорокова М.Г. Особенности использования цифровых устройств детьми дошкольного возраста: новый социокультурный контекст // Социальная психология и общество. 2022. Том 13. № 2. С. 177—193. DOI:10.17759/spo.2022130212

6. Gibson E.J. Principles of perceptual learning and development. New York: Appleton Century Crofts, 1969. 537 p. DOI:10.1126/science.168.3934.958

7. Hauf P., Paulus M., Baillargeon R. Infants Use Compression Information to Infer Objects' Weights: Examining Cognition, Exploration, and Prospective Action in a Preferential-Reaching Task // *Child Development*. 2012. Vol. 83. № 6. P. 1978—1995. DOI:10.1111/j.1467-8624.2012.01824.x

8. Huang Y., Yao K., Li J., Li D., Jia H., Liu Y., Yiu C.K., Park W., Yu X. Recent advances in multi-mode haptic feedback technologies towards wearable interfaces // *Materials Today Physics*. 2022. Vol. 2. 100602. DOI:10.1016/j.mtphys.2021.100602

(ed.). Cambridge, Massachusetts: Elsevier Academic Press, 2019. P. 65—108. DOI:10.1016/bs.acdb.2018.12.001

17. *van Polanen V., Tibold R., Nuruki A., Davare M.* Visual delay affects force scaling and weight perception during object lifting in virtual reality // *Journal of*

*Neurophysiology*. 2019. Vol. 121. № 4. P. 1398—1409. DOI:10.1152/jn.00396.2018

18. *Walker P., Scallan G., Francis B.* Cross-Sensory Correspondences: Heaviness is Dark and Low-Pitched // *Perception*. 2016. Vol. 46. № 7. P. 772—792. DOI:10.1177/0301006616684369

### **Information about the authors**

*Svetlana G. Krylova*, PhD in Psychology, Associate Professor, Chair of General Psychology and Conflictology, Ural State Pedagogical University, Yekaterinburg, Russia, ORCID: <https://orcid.org/0000-0002-2089-7885>, e-mail: [s\\_g\\_krylova@mail.ru](mailto:s_g_krylova@mail.ru)

*Yuliya E. Vodyakha*, PhD in Psychology, Associate Professor, Chair of General Psychology and Conflictology, Ural State Pedagogical University, Yekaterinburg, Russia, ORCID: <https://orcid.org/0000-0002-6795-9174>, e-mail: [jullyaa@ya.ru](mailto:jullyaa@ya.ru)

### **Информация об авторах**

*Крылова Светлана Геннадьевна*, кандидат психологических наук, доцент кафедры общей психологии и конфликтологии, ФГБОУ ВО «Уральский государственный педагогический университет» (ФГБОУ ВО УрГПУ), г. Екатеринбург, Российская Федерация, ORCID: <https://orcid.org/0000-0002-2089-7885>, e-mail: [s\\_g\\_krylova@mail.ru](mailto:s_g_krylova@mail.ru)

*Водяха Юлия Евгеньевна*, кандидат психологических наук, доцент кафедры общей психологии и конфликтологии, ФГБОУ ВО «Уральский государственный педагогический университет» (ФГБОУ ВО УрГПУ), г. Екатеринбург, Российская Федерация, ORCID: <https://orcid.org/0000-0002-6795-9174>, e-mail: [jullyaa@ya.ru](mailto:jullyaa@ya.ru)

Получена 26.11.2021

Принята в печать 30.06.2022

Received 26.11.2021

Accepted 30.06.2022

# Comparison of Parental Attitudes Before and During the COVID-19 Pandemic

**Sibel Atli**

Van Yuzuncu Yil University, Van, Turkey

ORCID: <https://orcid.org/0000-0002-4938-4530>, e-mail: [sibel.atl@gmail.com](mailto:sibel.atl@gmail.com)

**Selim Gunuc**

Izmir Bakircay University, Izmir, Turkey

ORCID: <https://orcid.org/0000-0002-2278-7882>, e-mail: [selim.gunuc@bakircay.edu.tr](mailto:selim.gunuc@bakircay.edu.tr)

The goal of this study was to investigate changes in parental attitudes and family variables during the COVID-19 pandemic. Survey methodology was employed to collect the data; the questionnaires included a family information form prepared by the researchers and the “Parental Attitude Research Instrument” (PARI), used to examine changes in parental attitudes related to the pandemic. The initial data, collected immediately before the outbreak of COVID-19, were compared with data gathered in May 2020, by which time the pandemic had already spread throughout Turkey. The research sample included 119 mothers with preschool children aged 5—6 years enrolled in four public schools. Our findings indicated that changes in family life and parental attitudes occurred during the pandemic. While scores measuring the two PARI subscales of dependency and egalitarianism and democratic attitudes increased, the scores for rejection of the home-making role and strictness and authoritarianism decreased. According to the multivariate analysis of covariance (MANCOVA) results, there was a statistically significant difference between the time measurements (taken before and during the pandemic) with respect to the combined dependent variables of egalitarianism and democratic attitudes and strictness and authoritarianism, even after controlling for the demographic variables.

**Keywords:** COVID-19, pandemic, preschool, 5—6 years old, parenting attitudes, PARI.

---

**For citation:** Atli S., Gunuc S. Comparison of Parental Attitudes Before and During the COVID-19 Pandemic. *Psikhologicheskaya nauka i obrazovanie = Psychological Science and Education*, 2022. Vol. 27, no. 4, pp. 46—58. DOI: <https://doi.org/10.17759/pse.2022270405> (In Russ.).

# Сравнение родительских установок до и после пандемии COVID-19

**Сибель Атли**

Университет Ван Юзюнчу Йыл, Ван, Турция

ORCID: <https://orcid.org/0000-0002-4938-4530>, e-mail: [sibel.atl@gmail.com](mailto:sibel.atl@gmail.com)

**Селим Гюнук**

Бакырчайский Университет Измира, Измир, Турция

ORCID: <https://orcid.org/0000-0002-2278-7882>, e-mail: [selim.gunuc@bakircay.edu.tr](mailto:selim.gunuc@bakircay.edu.tr)

Целью данного исследования было изучение изменения родительских установок по отношению к разным сторонам семейной жизни во время пандемии COVID-19. Для сбора данных использовался метод анкетирования; опросники включали форму сбора информации о семье, подготовленную исследователями, и «Инструмент исследования родительских установок» (PARI), который использовался для изучения изменений в родительских установках, связанных с пандемией. Исходные данные, собранные непосредственно перед вспышкой COVID-19, сравнивали с данными, собранными в мае 2020 года, когда пандемия уже распространилась по всей Турции. В выборку исследования вошли 119 матерей детей дошкольного возраста (5–6 лет), обучающихся в четырех общеобразовательных школах. Наши данные показали, что во время пандемии произошли изменения в семейной жизни и родительских установках. В то время как количество баллов по таким признакам методики PARI, как зависимость и несамостоятельность матери и партнерские отношения увеличилось, количество баллов по признакам неудовлетворенность ролью хозяйки дома, суровость и излишняя строгость — уменьшилось. Согласно результатам многомерного ковариационного анализа (MANCOVA), была выявлена статистически значимая разница между временем проведения замеров (до и во время пандемии) в отношении комбинированных зависимых переменных — партнерские отношения, суровость и излишняя строгость — даже после контроля демографических переменных.

**Ключевые слова:** COVID-19, пандемия, дошкольный опыт, возраст 5–6 лет, родительские установки, PARI.

---

**Для цитаты:** Атли С., Гюнук С. Сравнение родительских установок до и после пандемии COVID-19 // Психологическая наука и образование. 2022. Том 27. № 4. С. 46–58. DOI: <https://doi.org/10.17759/pse.2022270405>

## INTRODUCTION

The word “pandemic” refers to an illness of epidemic proportions that spreads to more than one country or continent. Beginning in late 2019, the world faced a novel pandemic, the effects of which are still felt today. By April 2020, more than three billion people around the world were confined to their homes, and more than 130 countries

imposed restrictions on the mobility of their citizens in the hope of preventing the transmission of the novel coronavirus COVID-19 [36]. The pandemic has produced enormous sociological and psychological effects, impacting entire societies as well as changing the lives of countless individuals [20].

Parental attitudes influence all developmental domains of the respective children, especially



their socio-emotional development [29]. Numerous studies conducted in recent years have reported how parental attitudes affect child development and behavior [3; 14; 21; 27]. In the pre-school period, in which the child identifies with the parent, parental attitudes are of greater importance because their attitudes are adopted by the children [23].

Parental attitudes may be regarded as attitudes that the parents adopt toward various circumstances or situations in which the child finds itself [10]. By observing preschool children's behaviors, Baumrind identified three types of parental attitudes: authoritarian parenting, authoritative parenting, and permissive parenting [5]. This classification scheme allowed the full scope of parental attitudes that could serve as a guide for future research to be identified [11]. In the present study, encompassing the scope of parental attitudes and family life, five categories were used: *egalitarianism and democratic attitudes, strictness and authoritarianism, dependency, rejection of the homemaking role, and marital conflict*.

In families where egalitarianism and democratic attitudes prevail, the parents, being problem-oriented and rational, guide the activities undertaken by the child [4]. Children growing up in democratic families are less anxious and have an advantage in terms of their socio-emotional efficacy as well as the ability to regulate their emotions [34]. Democratic parental attitudes may be considered the most beneficial attitudes with regard to the developmental domains of the child [7].

Strict and authoritarian families attempt to evaluate, control, and shape the child's behaviors and attitudes from the perspective of an authority figure with absolute power [4]. Studies have shown that authoritarian parental attitudes result in the child developing negative personality traits and anxiety [13]. Authoritarian parental attitudes are reported to promote the use by children of negative behaviors in problem-solving [30]. Children in families where dependency dominates, that is, raised in an over-protective environment, tend to become over-dependent on others, lack confidence, and suffer from emotional breakdowns [37]. In the present study, a parent's rejection of the homemaking role and marital conflict were also taken into consideration as they relate to family life. These dimensions can be explained by families adapting to changing

social and economic conditions, accompanied by changes in the relationships, roles, and responsibilities within the family [1].

### Theoretical Framework

Ecological systems theory represents an important framework for understanding how family processes are affected by the different environmental settings within which family members function. External factors are important and influential on the family. As such, they require careful examination in order to be fully understood [1; 15; 19]. The first level of this model is the microsystem, constituting the individual's immediate environment, in which individual personality traits and family interactions act as major influences. The next level is the mesosystem, which consists of connections between microsystems. Microsystems and mesosystems are embedded within exosystems, environments that have indirect effects on family interactions. In the present study, we hypothesized that demographic variables such as the age of the child, parental employment and educational status would be reflected in family attitudes at the microsystem, mesosystem, and exosystem levels. The COVID-19 pandemic may be assumed to impact critical global systems, such as the economy, health, economy, education, etc., at the macro level of the ecological framework. Ecological systems theory has formed the basis of a number of empirical studies exploring how multiple psychosocial factors affect child development and parenting [18; 38]. Since the COVID-19 pandemic has affected the health, working lives, and overall lifestyles of families, it is expected that in adapting to this novel situation, attitudes within families will change, just as the microsystem, mesosystem, exosystem, and macrosystem all undergo changes as they affect each other.

### Research questions (Hypothesis)

Although several studies in the literature have examined the effects of demographic variables on family attitudes and characteristics [24; 27; 35], as of yet, no longitudinal study investigating the effects of the COVID-19 pandemic on family attitudes has been published. Our research question and hypothesis are as follows:

RQ1. *How did the COVID-19 pandemic affect the differences in parental attitudes associated with*

*demographic variables?* Studies have shown that parental attitudes and styles of child-rearing may vary depending on any number of factors, including cultural and socio-demographic characteristics [22; 24; 27; 34; 35]. When examined within the framework of ecological systems theory, the COVID-19 pandemic may impact family dynamics and lifestyles at the macro level. Thus, changes in family attitudes during the pandemic are to be expected.

## METHOD

### Research Model

In this study, a survey methodology was employed to evaluate changes in parental attitudes caused by the pandemic. To this end, the initial data collected prior to the start of the COVID-19 pandemic (December 2019) were compared with the data collected after the pandemic had spread throughout Turkey (May 2020). The demographic variables of relevance to this study were determined. The children, 39.5% of whom were five years old and 60.5% of whom were six, were split almost evenly in terms of gender, 49.6% being female and 50.4% male. The mothers' ages ranged from 23 to 50 with an average age of 33.5 years, while the fathers averaged 38 years, with ages ranging between 26 and 53.

### Sample

The research sample was comprised of 119 mothers with preschool children aged 5—6 years from four state schools in the city of Van, Turkey. All the mothers were selected on a random basis, representing different socioeconomic classes. The same research sample was used both in the first and second stages of data collection.

### Data Collection Tools

A family information form, prepared by the researchers, and the "Parental Attitude Research Instrument" (PARI) were used for data collection. The family information form consisted of questions pertaining to such demographic variables as the child's age, parental educational level and profession, and the number of siblings in the family.

The PARI scale, developed by Schaefer and Bell [28] to examine the effects of parental attitudes on child development, was adapted into Turkish in 1978 [16]. As a result of the adaptation study conducted in Turkey, Le Compte, Le Compte, and Özer

decreased the total number of items in the scale to 60 for all five subscales combined. The Turkish version incorporates a four-point Likert-type scale for scoring and includes five subscales: *dependency* (D) (16 items), *egalitarianism and democratic attitudes* (EDA) (9 items), *rejection of the homemaking role* (RHR) (13 items), *marital conflict* (MC) (6 items), and *strictness and authoritarianism* (SA) (16 items). The items numbered 2, 29, and 44 are coded reversely. With the exception of the egalitarianism and democratic attitudes subscale, high scores indicate negative attitudes on the part of the mothers. Employing the test-retest method within a period of three weeks, values of .58 and .88 were calculated for the reliability coefficients, while Cronbach's alpha coefficient was determined to be .64 [16].

In the current study, the scores for each of the five subscales were evaluated separately. The four possible responses range from "I find it completely inappropriate" to "I find it completely appropriate". High subscale scores indicate agreement with the attitude being measured.

### Data Collection and Analysis

Official permission to undertake this study was granted by the Provincial Directory of National Education. The questionnaires were distributed to four randomly-selected schools, and the school administrators were asked to send the questionnaires to mothers volunteering to participate in the study. Although the PARI scale evaluates parental attitudes, since the contents of the subscales were considered more relevant to mothers, it was the latter who were therefore requested to complete the surveys. The first set of data was collected in December 2019, using hard copies of the questionnaires.

The period in which the pandemic and related precautions (such as the curfew) were most prevalent in Turkey was May of 2020. Thus, the second data set was collected in May 2020 from the participating mothers, who also provided the first data set. However, for the second round of data collection, online forms were used due to the restrictions imposed during that stage of the pandemic.

For statistical analysis, all of the data was input into the SPSS (Statistical Package for Social Sciences) software suite. The total scores were calculated for each of the five PARI subscales. The normality of the subscale data for each demographic

variable was examined, and all were found to exhibit a normal distribution. Therefore, the parametric tests analysis of variance (ANOVA) and t-test could be used to analyze the data. For ANOVA, the Tukey post hoc test was conducted to determine the source of the difference. A *p*-value of less than .05 was considered statistically significant.

Lastly, we used one-way multivariate analysis of covariance (MANCOVA) to incorporate multiple dependent variables while controlling for certain demographic variables. Specifically, MANCOVA was used in the present study to determine whether any statistically significant differences existed between the time measurements (before and during the pandemic) for the combined dependent variables (dependency, egalitarianism and democratic attitudes, rejection of the homemaking role, marital conflict, and strictness and authoritarianism) while controlling for the demographic variables (child's age, parental education level, parents' professions, and the number of siblings in the family).

### FINDINGS

In order to answer our research question, the data pertaining to the periods before and during the pandemic were compared. Next, the parental attitude scores before the pandemic (the scores for the five subscales) and the parental attitude scores during the pandemic (the scores for the five subscales) were examined to determine whether the scores differed significantly in terms of each demographic variable. The tables below present the findings obtained via the analyses, showing

only the subscale data with a significant difference.

First, the scores obtained before and during the pandemic for the five PARI subscales were compared; the results are given in Table 1.

According to Table 1, no significant difference was observed between the data obtained before and during the pandemic for the MC subscales, whereas the other subscales all showed significant differences between the first and second data sets. According to the mean values in Table 1, the D and EDA subscale scores were significantly higher during the pandemic, while those of the RHR and SA subscales were significantly higher prior to the pandemic.

The results of the analyses revealed no significant difference in parental attitudes with regard to the child's gender for any of the subscales, either before or during the pandemic. The ages of the mothers and fathers were grouped as "20-30", "31-35", and "36 or older"; with respect to parental age, the data showed no significant differences in parental attitudes for any of the subscales.

The subscale scores of the mothers with children aged 5 or 6 years were compared next, with the results of the analyses shown in Table 2.

According to the results presented in Table 2, the pre-pandemic EDA subscale score and the D subscale score obtained during the pandemic both differed significantly depending on the age of the child. Mothers with 6-year-old children had higher EDA subscale scores when compared to those with 5-year-old children both before and during the pandemic.

Table 1

**PARI independent t-test results before and during the pandemic**

PARI Subscale	Age	N	Mean	Sd	t	Df	p
D subscale	Before the pandemic	119	39.378	8.549	-5.671	118	.000
	During the pandemic	119	46.689	9.905			
EDA subscale	Before the pandemic	119	17.521	4.012	-20.707	118	.000
	During the pandemic	119	29.059	4.205			
RHR subscale	Before the pandemic	119	37.387	6.299	6.315	118	.000
	During the pandemic	119	32.042	7.441			
MC subscale	Before the pandemic	119	16.210	3.949	0.913	118	.363
	During the pandemic	119	15.689	4.472			
SA subscale	Before the pandemic	119	42.555	7.661	6.765	118	.000
	During the pandemic	119	35.017	8.633			

Table 2

**PARI with respect to the child's age**

Before the pandemic	Age	n	Mean	Sd	t	Df	p
EDA subscale	5	71	16.690	3.963	-2.835	118	.005
	6	49	18.735	3.763			
<b>During the pandemic</b>							
D subscale	5	47	43.447	10.519	-2.807	115	.006
	6	70	48.514	8.887			

Regarding the educational levels of the fathers, the results of the comparisons of the subscale scores obtained before and during the pandemic are given in Table 3.

As Table 3 shows, in terms of the father's educational background, significant differences were observed in the pre-pandemic SA subscale scores as well as in the D and SA subscale scores obtained during the pandemic. The results of the post hoc test conducted to determine the source of the difference revealed that the pre-pandemic SA subscale scores of the fathers who were college graduates were higher than those with only elementary school education ( $m.d.=8.235, p<.05$ ) and higher than fathers with a high school diploma ( $m.d.=3.921, p<.05$ ).

Regarding data obtained during the pandemic, the D and SA subscale scores of the fathers with only a secondary/high school education were higher than those of the fathers with a university degree ( $m.d.=6.129, p<.05$ ;  $m.d.=6.489, p<.05$ , respectively).

The mothers' scores in the five subscales before and during the pandemic were compared with respect to their educational levels; the results of the analyses are presented in Table 4.

Concerning the mother's educational background, significant differences were found in the pre-pandemic D and SA subscale scores and the D, EDA, and SA subscale scores obtained during the pandemic. The results of the post hoc test to determine the source of the difference showed that before the pandemic, the D subscale scores of the mothers with a university degree were higher than those of the mothers with only an elementary school education ( $m.d.=5.131, p<.05$ ); the same phenomenon was observed with regard to the SA subscale scores ( $m.d.=7.277, p<.05$ ). The SA subscale scores of the mothers with a high school diploma were also higher than those of the mothers with who had only received an elementary school education ( $m.d.=4.241, p<.05$ ).

During the pandemic, the D subscale scores of the mothers with a high school diploma were

Table 3

**PARI with respect to the father's level of education**

Before the pandemic	The father's level of education	Sum of Squares	Df	Mean Square	F	p
SA subscale	Between Groups	970.692	2	485.346	9.533	.000
	Within Groups	5956.775	117	50.913		
	Total	6927.467	119			
<b>During the pandemic</b>						
D subscale	Between Groups	1028.378	2	514.189	5.600	.005
	Within Groups	10374.682	113	91.811		
	Total	11403.060	115			
SA subscale	Between Groups	1187.364	2	593.682	8.859	.000
	Within Groups	7572.602	113	67.014		
	Total	8759.966	115			

Table 4

**PARI with respect to the mother’s level of education**

Before the pandemic	The mother’s level of education	Sum of Squares	Df	Mean Square	F	P
D subscale	Between Groups	481.328	2	240.664	3.421	.036
	Within Groups	8229.872	117	70.341		
	Total	8711.200	119			
SA subscale	Between Groups	969.497	2	484.748	9.519	.000
	Within Groups	5957.970	117	50.923		
	Total	6927.467	119			
<b>During the pandemic</b>						
D subscale	Between Groups	2497.692	2	1248.846	16.220	.000
	Within Groups	8777.299	114	76.994		
	Total	11274.991	116			
EDA subscale	Between Groups	201.172	2	100.586	6.113	.003
	Within Groups	1875.751	114	16.454		
	Total	2076.923	116			
SA subscale	Between Groups	1815.841	2	907.920	15.027	.000
	Within Groups	6888.022	114	60.421		
	Total	8703.863	116			

higher than those of the university-educated mothers (m.d.=9.583,  $p<.05$ ), as were the D subscale scores of the mothers with only an elementary school education (m.d.=10.191,  $p<.05$ ). The EDA subscale scores of the mothers with college degrees were higher than both those with only a high school diploma (m.d.=2.554,  $p<.05$ ) and those with an elementary school education (m.d.=3.038,  $p<.05$ ).

Mothers with high school diplomas scored higher on the SA subscale during the pandemic than those with a university degree (m.d.=7.283,  $p<.05$ ), as did mothers with only an elementary school education (m.d.=9.379,  $p<.05$ ).

Regarding the number of children in the family, the five subscale scores obtained before and during the pandemic were also compared, and the results are shown in Table 5.

According to Table 5, in relation to the number of siblings, there was a significant difference between groups in pre-pandemic D subscale scores, while no significant difference was observed in any of the subscale scores obtained during the pandemic. The results of the post hoc test conducted to determine the source of the difference revealed that the mothers of children with no siblings and only one sibling both had higher D subscale scores than those whose children had 4

Table 5

**PARI with respect to the number of siblings in the family**

Before the pandemic	The number of children	Sum of Squares	Df	Mean Square	F	p
D subscale	Between Groups	968.071	4	242.018	3.594	.008
	Within Groups	7743.129	115	67.332		
	Total	8711.200	119			
<b>During the pandemic</b>						
No significant difference					$p>.05$	

or more siblings (m.d.=9.967,  $p<.05$ ; m.d.=9.587,  $p<.05$ , respectively).

The scores for the five subscales obtained before and during the pandemic were also compared with regard to the mother's profession; the results are presented in Table 6.

As shown in Table 6, concerning the mother's profession, significant differences were observed in the pre-pandemic SA subscale scores and in the D, EDA, and SA subscale scores obtained during the pandemic. The post hoc test to determine the source of the difference indicated that the pre-pandemic SA subscale scores of the mothers who were teachers were higher

than those of the mothers who were housewives (m.d.=5.085,  $p<.05$ ).

During the pandemic, the D and SA subscale scores of the mothers who were housewives were higher than those of the mothers employed as teachers (m.d.=10.168,  $p<.05$ ; m.d.=10.637,  $p<.05$ , respectively), while the EDA subscale scores showed the opposite result (m.d.=2.566,  $p<.05$ ).

Comparisons were also made of the subscale scores related to the father's profession, taken both before and during the pandemic. The results of these analyses are presented in Table 7.

In relation to the father's profession, there were significant differences in the pre-pandemic

Table 6

**PARI with respect to the mother's profession**

	The mother's profession	Sum of Squares	df	Mean Square	F	p
SA subscale	Between Groups	575.088	2	287.544	5.296	.006
	Within Groups	6352.378	117	54.294		
	Total	6927.467	119			
<b>During the pandemic</b>						
D subscale	Between Groups	1779.965	2	889.983	10.210	.000
	Within Groups	9675.552	111	87.167		
	Total	11455.518	113			
EDA subscale	Between Groups	129.942	2	64.971	3.824	.025
	Within Groups	1885.996	111	16.991		
	Total	2015.939	113			
SA subscale	Between Groups	1910.216	2	955.108	15.887	.000
	Within Groups	6673.302	111	60.120		
	Total	8583.518	113			

Table 7

**PARI with respect to the father's profession**

PARI Subscale	The father's profession	Sum of Squares	df	Mean Square	F	p
SA-subscale	Between Groups	601.064	3	200.355	3.674	.014
	Within Groups	6326.402	116	54.538		
	Total	6927.467	119			
<b>During the pandemic</b>						
D-subscale	Between Groups	1231.874	3	410.625	4.495	.005
	Within Groups	10322.913	113	91.353		
	Total	11554.786	116			
SA-subscale	Between Groups	2095.710	3	698.570	11.817	.000
	Within Groups	6680.256	113	59.117		
	Total	8775.966	116			

SA subscale score as well as in the D and SA subscale scores obtained during the pandemic. The post hoc test found that the pre-pandemic SA subscale scores of the fathers employed as teachers were higher than those of the fathers who were tradesmen (m.d.=6.351,  $p<.05$ ).

Concerning the D subscale scores obtained during the pandemic, the unemployed fathers (m.d.=13.318,  $p<.05$ ) and those working as tradesmen (m.d.=8.272,  $p<.05$ ) both scored higher than fathers who were teachers. The SA subscale scores of the unemployed fathers (m.d.=16,125,  $p<.05$ ) and tradesmen (m.d.=10.478,  $p<.05$ ) were both higher than those of the fathers who were teachers.

After controlling for the demographic variables (child’s age, parents’ educational level, parents’ profession, number of siblings), the difference between the time measurements (before and during the pandemic) with respect to the combined dependent variables of egalitarianism and democratic attitudes (EDA) and strictness and authoritarianism (SA) was determined to be statistically significant ( $F(5,217)=2.564$ ,  $p<.05$ , Wilks’  $\Lambda=.056$ ). However, there was no statistically significant difference between the time measurements for the combined dependent variables dependency (D), rejection of the homemaking role (RHR), and marital conflict (MC) after controlling for the demographic variables.

Following the determination of the statistically significant differences, post hoc analyses were performed for EDA and SA. According to the data presented in Table 8, post hoc comparisons using the Bonferroni test showed a significant dif-

ference between the mean pre-pandemic EDA score (MEDA1=20.396) and that obtained during the pandemic (MEDA2=25.665). The mean pre-pandemic SA score (MSA1=44.802) was also significantly different from the mean score obtained during the pandemic (MSA2=32.466).

### DISCUSSION & CONCLUSION

Ecological systems theory emphasizes that individual and family functioning are influenced by macrosystem variables. This situation reflects that the adaptiveness of a particular parenting attitude or family interaction style is often determined by the nature of the broader social context [32]. For example, parents who perceive higher levels of danger in their environment tend to be more strict [12]. One study found that 80% of the participants required mental health services during the COVID-19 pandemic [25], while another reported that the majority of children in Bangladesh suffered from mental health problems during isolation [39]. As is evident, the pandemic has had numerous negative effects on the mental health of children and adults in different countries. According to ecological systems theory, this situation indicates that the pandemic affects the individual at the macro level.

Similarly, the results of the current study show that the COVID-19 pandemic led to changes in family attitudes. Although the difference in the marital conflict (MC) subscale scores obtained before and during the pandemic was not statistically significant, the scores for both the dependency (D) and egalitarianism and democratic attitudes (EDA) subscales increased during the pandemic,

Table 8

### One-Way MANCOVA and Post-Hoc Results

Effect		Value	F	Hypothesis df	Error Df	p	Partial Eta Squared
Intercept	Wilks' Lambda	.614	27.289	5.000	217.000	.000	.386
Time	Wilks' Lambda	.944	2.564	5.000	217.000	.028	.056
Dependent Variable	(1) Time	(2) Time	Mean Difference (1—2)	Std. Error	p		
EDA	Before the pandemic	During the pandemic	-5.268	2.398	.029		
SA	Before the pandemic	During the pandemic	12.336	4.830	.011		

Design: Intercept + Time is an independent variable (before and during the pandemic) + The demographic variables are covariate variables

while the rejection of the homemaking role (RHR) and strictness and authoritarianism (SA) scores decreased. According to the MANCOVA results, there were statistically significant differences between the time measurements (before and during the pandemic) in the combined dependent variables egalitarianism and democratic attitudes (EDA) and strictness and authoritarianism (SA), even after controlling for the demographic variables. These results provide important evidence that the attitudes in question were not affected by familial variables but by the pandemic itself (as represented by the time variable).

Another noteworthy finding was the low score for rejection of the homemaking role, a result that could be explained from the perspective of feminist family theory. In their study, Bradbury-Jones and Isham reported that violence within the family increased in numerous countries throughout the world during the COVID-19 pandemic [8]. The researchers also noted that women and children, who constitute the physically most vulnerable members of a family unit, were exposed to violence and even murder during the pandemic. Therefore, a reason for the low score for the rejection of the homemaking role could be that mothers, given their lack of power within the family, might be trying to protect themselves, prioritizing the overall unity of the family rather than aiming to increase their own power within it.

In the present study, the differences in parental attitudes associated with the demographic variables were also of interest. The mothers with a six-year-old child had higher scores for egalitarianism and democratic attitudes (before the pandemic) and dependency (during the pandemic) when compared to those with a five-year-old child. Since, according to the families, six-year-old children are better at taking responsibility and making shared decisions than five-year-olds, the parents demonstrated more democratic attitudes toward their six-year-old children.

The educational levels of the mothers and fathers participating in this study were determined to be significant as well. The mothers with a university degree had higher pre-pandemic dependency and strictness and authoritarianism scores than the other mothers. During the pandemic, the university-educated mothers had higher egalitarianism and democratic attitudes scores, while those with lower levels of education had higher dependency and strictness and authoritarianism scores. The pre-pandemic strictness and authoritarianism scores were higher for fathers with a university degree, whereas during the pandemic, those same fathers scored lower on that subscale compared to those who completed secondary education. Similarly, studies have shown that parents with less education demonstrated higher levels of strictness and authoritarianism while more educated parents scored higher on democratic attitudes [26; 27; 33]. In this regard, one interesting finding was that strictness and authoritarianism scores were high for the parents with low levels of education during the pandemic, as situations such as the latter contribute to feelings of stress, anxiety, and fear, while the more educated parents scored higher on egalitarianism and democratic attitudes. Based on this result, knowledge, higher literacy levels, and skills acquired via education may be inferred to lead to more positive results in managing extraordinary circumstances such as a pandemic. Moreover, our results showed that during the pandemic, parents with a university degree were more successful in demonstrating democratic attitudes, which are the most beneficial ones in terms of child development.

Another variable related to the parents' educational background was their profession, which in this study was also revealed to play an important role with respect to parental attitudes. The pre-pandemic strictness and authoritarianism scores of the fathers and mothers working as teachers were higher than those of the mothers who were housewives. During the pandemic, the mothers who were housewives and the fathers who were either unemployed or tradesmen had higher subscale scores for both dependency and strictness and authoritarianism, which represent negative attitude dimensions. In addition, the mothers employed as teachers scored higher on egalitarianism and democratic attitudes, which are positive attitude dimensions, than the mothers who were housewives.

The present study found no significant differences before or during the pandemic in any of the PARI subscales in terms of the child's gender or



the parents' ages, which is consistent with the literature [26]. Regarding the number of children in the family, a significant difference was observed only in the pre-pandemic data. The results of the present study, in which there was no significant difference in parental attitudes in terms of the number of children during the pandemic, suggest that parents adopt similar attitudes regardless of how many children they have.

According to our findings, the pandemic precipitated changes in family life and parental attitudes. These results also support ecological systems theory, which examines the internal and external factors that affect a child's growth and development. Each child is born into and grows up in a certain social and cultural system influenced by other social and cultural systems. The family unit is connected to educational establishments, other institutions and communities, and society as a whole. All of these interrelated elements exert great influence initially on the child's family and secondarily on the child him/herself [6].

Regarding the limitations of the present study, the original study design included only a single measurement, as the research had been planned before the start of the pandemic. As a result, the pre-pandemic data were not compared on a one-to-one basis for each individual participant. With the second data set obtained during the pandemic since prior to the pandemic, no identity-related information had been gathered, such as coding the names of the participants. However, an overall comparison of the data collected before and during the pandemic was conducted. The initial study design was followed at the beginning of the pandemic, and the same data collection forms were distributed to the mothers for the second data collection. For this reason, the two different

data sets (before and during the pandemic) for the mothers were not compared in the analysis process. Instead, as the mothers at the same schools had been contacted, the same samples were compared as a whole. Although this situation could be regarded as a limitation with respect to our research findings, this situation is not assumed to have resulted in any change in the results. Another limitation of the study was that the research data were collected only from the mothers, given that the content of the PARI subscales may be considered more applicable to mothers. It should thus be kept in mind that the results of the research were interpreted accordingly.

The basic premise of social contagion theory maintains that every thought and every behavior in a group is potentially contagious [17]. Children tend to approve of their own thoughts and behaviors based on the influence of their parents, to whom they feel they belong [31]. Individuals interact with each other more intensely in stressful or chaotic environments compared to normal conditions; hence, in such circumstances, the thoughts and behaviors of individuals may be more affected than usual by the actions of other members of the group/family. Taking this phenomenon into consideration, we recommend that the effects of the pandemic be examined within the framework of social contagion theory in future studies. Furthermore, different measurement tools could be used to collect data from both mothers and fathers to compare their attitudes toward parenting, and parental attitudes should also be examined following the conclusion of the pandemic. Investigating whether the pandemic has led to a permanent change in parental attitudes is of critical importance for studying children and family dynamics.

## References

1. Atli S., Baran G. Tarihsel Süreçte Aile ve Aile Kuramları [Family and Family Theories in Historical Process]. In Baran, G. (Ed.), *Aile Yaşam Dinamikleri* [In the Dynamics of Family Life]. Ankara: Pelikan, 2021, pp. 25—58.
2. Attili G., Vermigli P., Roazzi A. Rearing styles, parents' attachment mental state, and children's social abilities the link to peer acceptance. *Child Development Research*, 2011. Vol. 2011, Article ID 267186, 12 p. DOI:10.1155/2011/267186
3. Aydogmus K., Baltas A., Baltas Z., Davaşlıgil Ü. *Ana-Baba Okulu* [Parent school]. İstanbul: Remzi Kitapevi. 2004, pp. 46—60.
4. Baumrind D. Effects of authoritative parental control on child behavior. *Child Development*, 1966. Vol. 37, no. 4, pp. 887—907.
5. Baumrind D. Current patterns of parental authority. *Developmental Psychology Monograph*, 1971, no. 4, pp. 1—103.
6. Begum N.N. Effect of parent involvement on math and reading achievement of young children:

- Evidence from the early childhood longitudinal study (Doctoral dissertation), 2007, Available from ProQuest Dissertations and Theses database. (UMI No. 3268588).
7. Bornstein L., Bornstein M.H. Parenting styles and child social development. In: R.E. Tremblay, R.G. Barr (ed.). *Encyclopedia on Early Childhood Development* [online]. Montreal, Quebec: Centre of Excellence for Early Childhood Development, 2007, pp. 1—4.
  8. Bradbury-Jones C., Isham L. The pandemic paradox: The consequences of COVID-19 on domestic violence. *Journal of Clinical Nursing*, 2020, no. 29, pp. 13—14. DOI:10.1111/jocn.15296.
  9. Cohan C.L., Cole S.W. Life course transitions and natural disaster: Marriage, birth, and divorce following Hurricane Hugo. *Journal of Family Psychology*, 2002. Vol. 16, no. 1, pp. 14—25. DOI:10.1037/0893-3200.16.1.14.
  10. Darling N., Steinberg L. Parenting style as context: An integrative model. *Psychological Bulletin*, 1993, no. 113, pp. 487—496. DOI:10.1037/0033-2909.113.3.487.
  11. Dornbusch S.M., Ritter P.L., Leiderman P.H., Roberts F., Fraleigh M.J. The relation of parenting style to adolescent school performance. *Child Development*, 1987, no. 58, pp. 1244—1257.
  12. Earls F., McGuire J., Shay S. Evaluating a community intervention to reduce the risk of child abuse. Methodological strategies in conducting neighborhood survey. *Child Abuse and Neglect*, 1994, no. 18, pp. 473—485.
  13. Hart C.H., Newell L.D., Olsen S. Parenting skills and social-communicative competence in childhood. In: J.O. Greene B.R. Burleson (ed.), *Handbook of communication and social interaction skills*. Mahwah, NJ: Erlbaum, 2003, pp. 753797.
  14. Jeynes W.H. A meta-analysis: The relationship between father involvement and student academic achievement. *Urban Education*, 2015. Vol. 50, no. 4, pp. 387—423.
  15. Klein D.M., White J.M. The long-term effects of family structure on gender role attitudes. *Journal of Marriage & the Family*, 1996, no. 50, pp. 709—717.
  16. LeCompte A., Özer A.S. Üst sosyo-ekonomik düzeyde Ankara'lı annelerin çocuk yetiştirme tutumları: Bir ölçek uyarlaması [Child-rearing attitudes of high socio-economic Ankara mothers: A scale adaptation]. *Türk Psikoloji Dergisi [Turkish Journal of Psychology]*, 1978. Vol. 1, no. 1, pp. 5—8.
  17. Locher D. *Social contagion theory*. Upper Saddle River: NJ Prentice Hall, 2005, pp. 24.
  18. Meyers S.A. Mothering in context: Ecological determinants of parent behavior. *Merrill-Palmer Quarterly*, 1999, no. 45, pp. 332—357.
  19. Mercer R.T., Faan R.N. Theoretical perspectives on the family, 1989, URL: <http://n.ereserve.fiu.edu/010009621-1.pdf> (Accessed 11.05.2020).
  20. Owen L. Five ways the coronavirus is hitting women in Asia, BBC News, 2020. Available at: <https://www.bbc.com/news/world-asia-51705199> (Accessed 12.12.2020).
  21. Özyürek A. Okul öncesi çocukların sosyal beceri düzeyleri ile anne tutumları arasındaki ilişkinin incelenmesi [Investigation of the relationship between social skill levels of preschool children and mother attitudes]. *Milli Eğitim Dergisi [Journal of National Education]*, 2015, no. 206, pp. 106—120.
  22. Özyürek A., Tezel Şahin F. 5—6 yaş grubunda çocuğu olan ebeveynlerin tutumlarının incelenmesi [Examining the attitudes of parents with children in the 5—6 age group]. *Gazi Üniversitesi Gazi Eğitim Fakültesi Dergisi [Journal of Gazi University Gazi Education Faculty]*, 2005. Vol. 25, no. 2, pp. 19—34.
  23. Potts N.L., Mandlco B.L. *Pediatric Nursing: Caring for Children and Their Families*. US: Delmar Thomson Learning, 2004, pp. 18—22.
  24. Rafferty Y., Griffin K. Parenting behaviors among low-income mothers of preschool age children in the United States: Implications for parenting programs. *International Journal of Early Years Education*, 2010. Vol. 18, no. 2, pp. 143—157.
  25. Roy D., Tripathya, S., Kumar S., Nivedita K., Sudhir S., Vermaa K., Kaushal V. Study of knowledge, attitude, anxiety & perceived mental healthcare need in Indian population during COVID-19 pandemic. *Asian Journal of Psychiatry*, 2020. Vol. 51, no. 102083.
  26. Şanlı D., Öztürk C. Annelerin çocuk yetiştirme tutumlarını etkileyen etmenlerin incelenmesi [Examining the factors affecting mothers' child rearing attitudes]. *Buca Eğitim Fakültesi Dergisi [Journal of Buca Faculty of Education]*, 2012, no. 32, pp. 31—48.
  27. Sak R., Sahin Sak I.T., Atli S., Sahin B.K. Okul öncesi dönem: Anne baba tutumları [Preschool period: Parental attitudes]. *Mersin Üniversitesi Eğitim Fakültesi Dergisi [Journal of Mersin University Faculty of Education]*, 2015. Vol. 11, no. 3, pp. 972—991. DOI:10.17860/efd.33313.
  28. Schaefer E.S., Bell R.Q. Development of a parental attitude research instrument. *Child Development*, 1958. Vol. 29, no. 3, pp. 339—361.
  29. Schultz D.P., Schultz S.E. *Modern Psikoloji Tarihi [A History of Modern Psychology]*. Istanbul: Kaknüs Yayınları, 2020, pp. 83.
  30. Snyder J., Stoolmiller M., Wilson M., Yamamoto M. Child anger regulation, parental responses to children's anger displays, and early child antisocial behavior. *Social Development*, 2003. Vol. 12, no. 3, pp. 335—360.
  31. Stolley K.S. *The Basics of Sociology*. USA: Greenwood Publishing Group, 2005, pp. 1—19.
  32. Steven A.M., Varkey S., Aguirre A.M. Ecological Correlates of Family Functioning. *American Journal of Family Therapy*, 2002. Vol. 30, no. 3, pp. 257—273. DOI:10.1080/019261802753577575.

33. Tatlı S., Selimoğlu H., Bademci D. Çocukları okul öncesi eğitime devam eden annelerin aile hayatı ve çocuk yetiştirme tutumlarının incelenmesi [Investigation of family life and child rearing attitudes of mothers whose children attend pre-school education]. *Bingöl Üniversitesi Sosyal Bilimler Enstitüsü Dergisi [Bingöl University Journal of Social Sciences Institute]*, 2012. Vol. 2, no. 3, pp. 101—114.
34. Towe-Goodman N.R., Teti D.M. Power assertive discipline, maternal emotional involvement, and child adjustment. *Journal of Family Psychology*, 2008, no. 22, pp. 648—651.
35. Tudge J., Hogan D., Snezhkova I., Kulakova N., Etz, K. Parent's child-rearing values and beliefs in the United States and Russia: The impact of culture and social class. *Infant and Child Development*, 2000, no. 9, pp. 105—121.
36. UNICEF. Rethinking screen-time in the time of COVID19, 2020. Available at: <https://www.unicef.org/globalinsight/stories/rethinkingscreen-time-time-covid-19> (Accessed 14.12.2020).
37. Yavuzer H. Yaygın Anne — Baba Tutumları. Ana Baba Okulu [Common Parental Attitudes. Parent School]. İstanbul: Remzi Kitapevi, 2001, pp. 82—95.
38. Woodworth S., Belsky J., Crnic K. The determinants of fathering during the child's second and third year of life: A developmental analysis. *Journal of Marriage and the Family*, 1996, no. 58, pp. 679—692.
39. Yeasmina S., Banik R., Hossain S., Hossain N., Mahumuda N., Salmaa N., Hossaina M. Impact of COVID-19 pandemic on the mental health of children in Bangladesh: A cross-sectional study. *Children and Youth Services Review*, 2020, no. 117, pp. 105—277.

### Information about the authors

*Sibel Atli*, PhD in Child Development, Assistant Professor, Chair of Child Development, Van Yuzuncu Yıl University, Van, Turkey, ORCID: <https://orcid.org/0000-0002-4938-4530>, e-mail: [sibel.atl@gmail.com](mailto:sibel.atl@gmail.com)

*Selim Gunuc*, PhD in Education Psychology, Associate Professor, Chair of Psychology, Izmir Bakircay University, Izmir, Turkey, ORCID: <https://orcid.org/0000-0002-2278-7882>, e-mail: [selim.gunuc@bakircay.edu.tr](mailto:selim.gunuc@bakircay.edu.tr)

### Информация об авторах

*Сибель Атли*, доктор психологических наук в области психологии развития, доцент кафедры психологии развития, Университет Ван Юзюнчу Йыл, Ван, Турция, ORCID: <https://orcid.org/0000-0002-4938-4530>, e-mail: [sibel.atl@gmail.com](mailto:sibel.atl@gmail.com)

*Селим Гюнук*, доктор психологических наук в области психологии образования, старший доцент кафедры психологии образования, Бакырчайский Университет Измира, Измир, Турция, ORCID: <https://orcid.org/0000-0002-2278-7882>, e-mail: [selim.gunuc@bakircay.edu.tr](mailto:selim.gunuc@bakircay.edu.tr)

Получена 25.07.2021

Принята в печать 30.06.2022

Received 25.07.2021

Accepted 30.06.2022

# The Connection of Belief in a Just World with the Attitude to Academic Dishonesty Among Schoolchildren with High and Low Loyalty to Cheating

**Elena V. Ulybina**

Russian Presidential Academy of National Economy and Public Administration under the President of the Russian Federation, Moscow, Russia  
ORCID: <https://orcid.org/0000-0002-5398-9006>, e-mail: [evulbn@gmail.com](mailto:evulbn@gmail.com)

**Aleksandra A. Tokareva**

Russian Presidential Academy of National Economy and Public Administration under the President of the Russian Federation, Moscow, Russia  
ORCID: <https://orcid.org/0000-0002-3183-357X>, e-mail: [tokareva\\_aa@bk.ru](mailto:tokareva_aa@bk.ru)

The article examines the relationship of Belief in a Just World (BJW) with the attitude to academic dishonesty among high school students. The research was aimed at checking the general hypothesis about the difference in the structure of the connection between the belief in a just world with the attitude towards dishonesty of schoolchildren who are loyal and not loyal to dishonesty. A total of 516 subjects, of which 274 were female, took part in the study; the average age was 15.5. The study used the Scale of Belief in a Just World (C. Dalbert), which includes two subscales: "Faith in a just world in general" and "Faith in justice towards the subject" and, to assess attitudes to academic impiety, the vignette method. The study showed that schoolchildren with high and low loyalty to cheating differ in the structure of the ties between the BJW and the attitude to dishonesty. Disloyal to dishonesty assess the permissibility of dishonesty as contrary to the image of a world that is fair to them personally and consider the possible punishment for cheating to be fair. The connections of the belief in a just world in general with the attitude to dishonesty are not significant. For those loyal to dishonesty, the assessment of the world as fair to them and to everyone is directly related to the prevalence of cheating, and the connections of both scales of the BJW with the assessment of the possible consequences of dishonesty and its permissibility are not significant. In schoolchildren loyal to dishonesty, both scales are directly related only to the assessment of the prevalence of cheating, the other links are not significant.

**Keywords:** Belief in a Just World, BJW for others, BJW for oneself, academic dishonesty, academic honesty, cheating, students, education.

**For citation:** Ulybina E.V., Tokareva A.A. The Connection of Belief in a Just World with the Attitude to Academic Dishonesty Among Schoolchildren with High and Low Loyalty to Cheating. *Psikhologicheskaya nauka i obrazovanie = Psychological Science and Education*, 2022. Vol. 27, no. 4, pp. 59—67. DOI: <https://doi.org/10.17759/pse.2022270406> (In Russ.).

# Связь веры в справедливый мир с отношением к академической нечестности у школьников с высокой и низкой лояльностью к читерству

**Ульбина Е.В.**

ФГБОУ ВО «Российская академия народного хозяйства и государственной службы при Президенте Российской Федерации» (ФГБОУ ВО РАНХиГС),  
г. Москва, Российская Федерация  
ORCID: <https://orcid.org/0000-0002-5398-9006>, e-mail: [evulbn@gmail.com](mailto:evulbn@gmail.com)

**Токарева А.А.**

ФГБОУ ВО «Российская академия народного хозяйства и государственной службы при Президенте Российской Федерации» (ФГБОУ ВО РАНХиГС),  
г. Москва, Российская Федерация  
ORCID: <https://orcid.org/0000-0002-3183-357X>, e-mail: [tokareva\\_aa@bk.ru](mailto:tokareva_aa@bk.ru)

Рассмотрена связь веры в справедливый мир (ВСМ) с отношением к академической нечестности у обучающихся старших классов школы. Работа была направлена на проверку общей гипотезы о различии структуры связи ВСМ с отношением к нечестности лояльных и нелояльных к нечестности школьников. Всего в исследовании приняли участие 516 человек, средний возраст — 15,5 лет, из них 274 девушки. В качестве основного инструментария использовались: Шкала веры в справедливый мир (С. Dalbert, Belief in a just world), включающая две субшкалы — Вера в справедливый мир вообще (ВСМ<sub>общ</sub>) и Вера в справедливость по отношению к субъекту (ВСМ<sub>личн</sub>), а для оценки отношения к академическому нечестию — метод виньеток. Исследование показало, что школьники с высокой и низкой лояльностью к читерству различаются в структуре связей ВСМ с отношением к нечестности. Нелояльные к нечестности оценивают ее как противоречащее образу справедливого для них лично мира и считают возможное наказание за читерство справедливым. Связи ВСМ<sub>общ</sub> с отношением к нечестности не значимы. У лояльных к нечестности оценка мира как справедливого и для них, и для всех прямо связана с распространенностью читерства, а связи обеих шкал ВСМ с оценкой возможных последствий нечестности и ее допустимости не значимы. У лояльных к нечестности школьников обе шкалы ВСМ прямо связаны только с оценкой распространенности читерства, остальные связи не значимы.

**Ключевые слова:** вера в справедливый мир, ВСМобщая, ВСМличная, академическая нечестность, академическая честность, читерство, ученики, образование.

---

**Для цитаты:** Ульбина Е.В., Токарева А.А. Связь веры в справедливый мир с отношением к академической нечестности у школьников с высокой и низкой лояльностью к читерству // Психологическая наука и образование. 2022. Том 27. № 4. С. 59—67. DOI: <https://doi.org/10.17759/pse.2022270406>

## Introduction

Academic dishonesty (cheating) is an unfortunate but fairly widespread occurrence that includes a wide range of phenomena, from breaking rules to get better grades and other benefits to doing so to benefit others. In all cases, it has harmful consequences for both students and the educational system as a whole, particularly in reducing its credibility. In our study, academic dishonesty refers to any type of dishonesty associated with breaking the rules of academic activity.

Research on actual dishonesty shows that not all participants resort to dishonesty in an environment with a guaranteed lack of monitoring [10]. People seek both benefits and the preservation of a positive self-image. In the same conditions in which some schoolchildren cheat, others do not. A factor that may determine why is the notion of a just world structure.

According to M. Lerner [12], belief in a just world (BJW) is an adaptive illusion of the existence of rules, the observance of which will lead to success and violation of which will be punished.

The identification of two separate factors in the structure of belief in a just world — faith in a just world in general and faith in justice towards the subject [13] — showed that faith in justice towards the subject is directly connected with pro-social behavior [5; 21] because it corresponds to belief in the validity of rules [6], and faith in a just world in general — with a hostile attitude toward those who are in an unfavorable situation [20] because, if their suffering is not deserved, it prevents them from seeing the world as just.

In schoolchildren, the association of the belief in a just world with the self-assessment of cheating is mediated by the perceived justice of teachers [9; 17; 19]. This suggests that cheating and non-cheating students use different strategies in self-assessment.

Since belief in a just world reflects the idea that there are rules in the world and inevitable feedback on the observance thereof, it can be assumed that by high school age, adolescents are already forming an idea of the reality of formal and perceived so-called descriptive norms [7]. Descriptive norms may or may not coincide with prescriptive norms that contain information about how things should be. But if they do not coincide, as in the case of behavior that meets official disapproval, it is these norms that are more likely than prescriptive ones to predict, as meta-analysis of 196 individual studies shows, one's actual behavior [15].

The assessment by a given student of the prevalence of cheating is one of the most useful predictors of academic dishonesty [16; 18], and for Russian students, perceived norms contribute more to one's self-assessment of dishonesty than to one's attitude toward dishonesty itself [14].

The prevailing norms are realized in the consequences of observance to and violation of them. For Russian students, cheating has no meaningful links with academic performance [2], but if knowledge is seen as important for later mastery and success, students are less likely to turn to dishonest behavior compared to those who pursue external goals [1; 4; 18]. At the same time, there is a fairly widespread belief in Russian culture that success in life is often achieved by low-performing students. Perhaps such attitudes legitimize dishonesty in the eyes of the students, allowing them to assess academic dishonesty as something that is characteristic of successful people and therefore, perhaps, a just and justifiable action.

Besides the intrinsic motivations above, the probability of subsequent punishment for cheating [1; 16; 18] can of course be a deterrent to dishonesty. It can be assumed in this case that, if one's image of a just world is formed based on prescriptive norms, punishment for cheating can be seen as just,

and if one's image of justice is based on perceived norms, then, it can be assumed, punishment of cheating can be perceived as a violation of the de facto status quo, as an unjust action.

At the same time, longitudinal studies show that academic performance directly depends on belief in a just world, while belief in a just world does not depend on academic performance [8]. Those who believe in the possibility of achieving good grades through effort do achieve them. It is also possible that one's assessment of how just one's environmental, which mediates the connection between cheating and belief in a just world [8], is a product of academic effort among those students who believe that academic results will lead them to success in the future. Therefore, they do their homework, get good grades, and consider the existing rules to be just. Meanwhile, those who do not associate success with study may have an equal level of belief in a just world but do not consider academic requirements to be just.

The analysis conducted allowed the following hypotheses to be formulated:

Schoolchildren with faith in dishonesty and those without have different perceptions of the prevalence of academic dishonesty and its consequences. Those with such a faith believe cheating is more common, causes less trouble and less damage, and is particularly common among children who turn out to be successful than schoolchildren without such a faith do. Those with a faith in dishonesty consider academic knowledge less important for future success than non-cheaters, and agree to a greater extent that success is achieved by low-performing students, and that success cannot be achieved by honest means.

For students with high faith in dishonesty, faith in justice towards the subject has a direct relationship to the permissibility of dishonesty, the likelihood of success as a result of dishonesty, and inversely to pun-

ishment for dishonesty and possible harm to others.

When one's faith in dishonesty is low, the belief in a just world includes official norms and the value of school knowledge. In this case, the belief in a just world is directly related to the likelihood of punishment for cheating, damage to others, and inversely to the perception that dishonesty at school age is peculiar to those who are successful and to the permissibility of dishonesty.

## Methods and sampling

### Sampling

A total of 516 students between the ages of 13 and 17, with an average age of 15.5, 274 of whom were female, and one who did not indicate gender, participated in the study.

### Methods

Five vignettes were used to analyze attitudes toward academic dishonesty, describing different instances of cheating that included dishonesty for one's own benefit and for the benefit of others:

1. Pupil A. used a cheat sheet on a test;
2. Pupil A. offered to write an essay for another pupil for money;
3. Pupil A. forged a note from his parents to avoid a test for which he was not ready;
4. Pupil A. wrote an essay for a classmate for money (other remuneration);
5. During a test, pupil A. passed the solution of the problems on his variant to the other pupils.

Judgments were offered for each variant of the situation, and agreement with them was assessed on a 10-point scale:

1. This is common behavior for students.
2. I believe that if it is absolutely necessary, it is okay to do this.
3. This action would hurt other people.
4. It would have unpleasant consequences for the student.
5. I assume that people who became successful used to do so as children as well.

Cronbach’s alpha for agreement with all judgments regarding the 5 vignettes was 0.778, indicating a fairly high consistency of responses and allowing for summary measurements of agreement with each statement to be used in the analysis of results.

The level of belief in a just world was measured using the scale of belief in a just world (C. Dalbert, Belief in a Just World) as adapted by S. K. Nartova-Bochaver and colleagues [3].

### Statement of results

The data were processed using the Jamovi 2.2.5 statistical package.

Table 1 presents descriptive statistics of the sums of agreement scores for each of the 5 vignette statements.

The upper and lower quartiles of the agreement distribution with the statement that it is okay to cheat were used to identify sub-samples with high and low levels of permissibility.

Table 2 shows the sub-sample with low faith in dishonesty, which consisted of 142 respondents with scores from 1 to 25 (the lower quartile of the overall distribution) and for the sub-sample with high faith in dishonesty — 134 respondents with scores from 40 to 50.

Nonparametric criteria were used to process the results since an ordinal Likert scale was used to assess agreement with the dishonesty statements.

Spearman correlation analysis was used in Table 3 to test the hypothesis of a relationship between the belief in a just world scales and attitudes toward cheating.

### Discussion

The hypothesis of a difference in perceptions of the prevalence and consequences of dishonesty among schoolchildren with and without faith in it was confirmed. Ones with such a faith consider cheating to be more common, characteristic of successful people,

Table 1

**Statistics of age, scales of belief in a just world, and sums of the agreement scores for each of the statements on the 5 vignettes**

Indicator	Average	Standard deviation	Asymmetry (standard error 0.108)	Excess (standard error 0.215)
Age	15.430	1.003	0.019	-0.894
Faith in justice towards the subject	43.459	14.045	-0.083	-0.024
Faith in a just world in general*	32.453	10.681	0.479	1.268
This is a common behavior for students	29.736	9.390	0.085	-0.371
I believe that if it is absolutely necessary, it is okay to do this	32.027	10.583	-0.098	-0.541
This action would hurt other people*	18.647	9.790	0.674	0.044
There would have unpleasant consequences for the student	27.465	9.639	-0.052	-0.425
I assume that people who became successful used to do so as children as well	29.921	10.479	-0.065	-0.423

Note: \* —distribution is significantly different from normal as per the Kolmogorov-Smirnov test.



Table 2

**Descriptive statistics and comparison of age, attitude toward justice, and attitude toward dishonesty among students with low and high level of faith in dishonesty using the Mann-Whitney test**

Scales	Low loyalty to dishonesty		High loyalty to dishonesty		U
	Average	Standard Deviation	Average	Standard Deviation	
Age	15.317	0.999	15.624	0.926	7790.5
Faith in justice towards the subject	42.697	13.080	43.744	15.988	8859.0
Faith in a just world in general	32.634	9.878	32.353	11.783	9162.0
This is a common behavior for students	22.930	7.736	36.948	8.835	2286.5***
This action would hurt other people	21.634	10.266	14.918	9.462	5690.5***
There would have unpleasant consequences for the student	29.556	9.223	24.746	11.029	7020.5***
I assume that people who became successful used to do so as children as well	21.958	7.634	37.052	11.186	2491.5***

Note: \*-<0.05, \*\*-<0.01, \*\*\* < 0.001, significance is given with Bonferroni correction.

Table 3

**Relationship of the belief in a just world with attitudes toward cheating among students with high and low levels of faith in cheating**

Scales	Faith in justice towards the subject			Faith in a just world in general		
	Sample total	Among students with low faith in dishonesty	Among students with high faith in dishonesty	Sample total	Among students with low faith in dishonesty	Among students with high faith in dishonesty
Age	0.002	-0.133	0.080	-0.018	-0.048	0.069
This is a common behavior for students	0.055	-0.135	0.224*	0.082	0.027	0.270*
I believe that if it is absolutely necessary, it is okay to do this	0.046	-0.243*	0.129	0.019	-0.075	0.114
This action would hurt other people	-0.028	0.112	-0.088	0.069	0.100	0.045
There would have unpleasant consequences for the student	0.111	0.234*	0.048	0.130*	0.135	0.145
I assume that people who became successful used to do so as children as well	-0.016	-0.175	-0.049	-0.018	0.064	-0.023

Note: \*-<0.05, \*\*-<0.01, \*\*\*<0.001, significance is given with Bonferonni correction.

entailing less trouble and leading to less damage than those without such a faith. The difference in the assessments of the prevalence and consequences of dishonesty in the same environment suggests the presence of filters that selectively capture and evaluate information that corresponds or does not correspond to one's established image of reality.

The hypotheses about the difference in the structure of how one's belief in a just world corresponds to one's attitude toward dishonesty were partially confirmed. With low faith in dishonesty, faith in 'justice towards the subject' is inversely related to the permissibility of cheating and directly related to the likelihood of punishment. To the extent that what happens to them personally is assessed as a just result of their own actions, the negative consequences of dishonesty are also just.

For schoolchildren with high faith in dishonesty, the scales regarding a belief in a just world are related only to the assessment of the prevalence of cheating, but any correspondence with the possible consequences are insignificant. It can be assumed that either these students have not yet formed a stable idea of cause-and-effect relationships, or they are focused on norms and consequences not

taken into account in the questions. The correlation of the belief in a just world with one's assessment of the prevalence of dishonesty suggests that significant consequences also lie in the realm of actual peer relations, which needs to be verified.

## Conclusions

The results confirm previous findings that there is no direct association of the belief in a just world with the permissibility of academic dishonesty among students.

However, students with high and low faith in cheating differ in the structure of their belief in a just world.

For students with low faith in dishonesty, the belief in a just world is inversely related to the permissibility of dishonesty and directly related to the probability of getting in trouble for such dishonesty. To the extent that the world is just to the subject himself, dishonesty is undesirable and punishment for it is likely.

For students who have faith in dishonesty, the scales of their belief in a just world are directly related only to their assessment of the prevalence of cheating; for them, the world is just to the extent that academic dishonesty is prevalent.

## References

1. Gizhitskii V.V. Uchebnyi obman kak strategiya psevadadaptivnogo povedeniya u starsheklassnikov [Educational deception as a strategy of pseudo-adaptive behavior in high school students]. *Uchenye zapiski Orlovskogo gosudarstvennogo universiteta. Seriya: Gumanitarnye i sotsial'nye nauki* [Scientific notes of the Oryol State University. Series: Humanities and social sciences], 2014, no. 2(58), pp. 293—299. (In Russ.).
2. Klimova K.K., Yachmeneva N.P. Svyaz' urovnya akademicheskoi uspevaemosti so sklonnost'yu k akademicheskomu moshennichestvu [Relationship between academic performance and propensity for academic fraud]. *Podrostok v megapolise: prodolzhennoe vzroslenie* [A teenager in the metropolis: continued maturation], 2019, pp. 124—127. (In Russ.).
3. Nartova-Bochaver S.K., Podlipnyak M.B., Khokhlova A.Yu. Vera v spravedlivyi mir i psikhologicheskoe blagopoluchie u glukhikh i slyshashchikh podrostkov i vzroslykh [Elektronnyi resurs] [Belief in a Just World and Psychological Well-Being in Deaf and Hearing

Adolescents and Adults]. *Klinicheskaya i spetsial'naya psikhologiya = Clinical and special psychology*, 2013, no. 2(3). Available at: [https://psyjournals.ru/files/64003/psyclin\\_2013\\_3\\_Nartova\\_Hohlova\\_Podlipnjak.pdf](https://psyjournals.ru/files/64003/psyclin_2013_3_Nartova_Hohlova_Podlipnjak.pdf) (Accessed 05.11.2021). (In Russ.).

4. Anderman E., Griesinger T., Westerfield G. Motivation and cheating during early adolescence. *Journal of Educational Psychology*, 1998. Vol. 90(1), pp. 84—93. DOI:10.1037/0022-0663.90.1.84
5. Bartholomaeus J., Strelan P. Just world beliefs and forgiveness: The mediating role of implicit theories of relationship. *Personality and Individual Differences*, 2016. Vol. 96, pp. 106—110. DOI:10.1016/j.paid.2016.02.081
6. Bartholomaeus J., Strelan P. The adaptive, approach-oriented correlates of belief in a just world for the self: A review of the research. *Personality and Individual Differences*, 2019. Vol. 151, pp. 109—185. DOI:10.1016/j.paid.2019.06.028
7. Cialdini R.B., Kallgren C.A., Reno R.R. A focus theory of normative conduct: Theoretical refinement and reevaluation

- of the role of norms in human behavior. *Advances in Experimental Social Psychology*, 1991. Vol. 24, pp. 201—243. DOI:10.1016/s0065-2601(08)60330-5
8. Dalbert C., Stoeber J. The personal belief in a just world and domain-specific beliefs about justice at school and in the family: A longitudinal study with adolescents. *International Journal of Behavioral Development*, 2006. Vol. 30(3), pp. 200—207. DOI:10.1177/0165025406063638
9. Donat M., Dalbert C., Kamble S.V. Adolescents' cheating and delinquent behavior from a justice-psychological perspective: The role of teacher justice. *European Journal of Psychology of Education*, 2014. Vol. 29(4), pp. 635—651. DOI:10.1007/s10212-014-0218-5
10. Fischbacher U., Föllmi-Heusi F. Lies in disguise—an experimental study on cheating. *Journal of the European Economic Association*, 2013. Vol. 11(3), pp. 525—547. DOI:10.1111/jeea.12014
11. Furnham A. Belief in a just world: Research progress over the past decade. *Personality and individual differences*, 2003. Vol. 34(5), pp. 795—817. DOI:10.1016/S0191-8869(02)00072-7
12. Lerner M.J. Integrating societal and psychological rules of entitlement: The basic task of each social actor and fundamental problem for the social sciences. *Social Justice Research*, 1987. Vol. 1(1), pp. 107—125. DOI:10.1007/bf01049386
13. Lipkusa I.M., Dalbert C., Siegler I.C. The importance of distinguishing the belief in a just world for self versus for others: Implications for psychological well-being. *Personality and Social Psychology Bulletin*, 1996. Vol. 22(7), pp. 666—677. DOI:10.1177/0146167296227002
14. Maloshonok N., Shmeleva E. Factors influencing academic dishonesty among undergraduate students at Russian universities. *Journal of Academic Ethics*, 2019. Vol. 17(3), pp. 313—329. DOI:10.1007/s10805-019-9323-y
15. Manning M. The effects of subjective norms on behaviour in the theory of planned behaviour: A meta-analysis. *British journal of social psychology*, 2019. Vol. 48(4), pp. 649—705. DOI:10.1348/014466608x393136
16. McCabe D.L., Treviño L.K., Butterfield K.D. Cheating in academic institutions: A decade of research. *Ethics & Behavior*, 2001. Vol. 11(3), pp. 219—232. DOI:10.1207/s15327019eb1103\_2
17. Muenscher S., Donat M., Ucar G.K. Students' Personal Belief in a Just World, Well-Being, and Academic Cheating: A Cross-National Study. *Social Justice Research*, 2020. Vol. 33(4), pp. 428—453. DOI:10.1007/s11211-020-00356-7
18. Murdock T.B., Anderman E.M. Motivational perspectives on student cheating: Toward an integrated model of academic dishonesty. *Educational psychologist*, 2006. Vol. 41(3), pp. 129—145. DOI:10.1207/s15326985ep4103\_1
19. Sabbagh C. Self-reported academic performance and academic cheating: Exploring the role of the perceived classroom (in) justice mediators. *British Journal of Educational Psychology*, 2021. Vol. 91(4), pp. 1517—1536. DOI:10.1111/bjep.12433
20. Sutton R.M., Douglas K.M. Justice for all, or just for me? More evidence of the importance of the self-other distinction in just-world beliefs. *Personality and Individual Differences*, 2005. Vol. 39(3), pp. 637—645. DOI:10.1016/j.paid.2005.02.010
21. Sutton R.M., Stoeber J., Kamble S.V. Belief in a just world for oneself versus others, social goals, and subjective well-being. *Personality and Individual Differences*, 2017. Vol. 113, pp. 115—119. DOI:10.1016/j.paid.2017.03.026

## Литература

1. Гижицкий В.В. Учебный обман как стратегия псевдоадаптивного поведения у старшеклассников // Ученые записки Орловского государственного университета. Серия: Гуманитарные и социальные науки. 2014. № 2(58). С. 293—299.
2. Климова К.К., Ячменева Н.П. Связь уровня академической успеваемости со склонностью к академическому мошенничеству // Подросток в мегаполисе: продолженное взросление. 2019. С. 124—127.
3. Нартова-Бочавер С.К., Подлипняк М.Б., Хохлова А.Ю. Вера в справедливый мир и психологическое благополучие у глухих и слышащих подростков и взрослых [Электронный ресурс] // Клиническая и специальная психология. 2013. № 2(3). URL: [https://psyjournals.ru/files/64003/psyclin\\_2013\\_3\\_Nartova\\_Hohlova\\_Podlipnjak.pdf](https://psyjournals.ru/files/64003/psyclin_2013_3_Nartova_Hohlova_Podlipnjak.pdf) (дата обращения: 05.11.2021).
4. Anderman E., Griesinger T., Westerfield G. Motivation and cheating during early adolescence // *Journal of Educational Psychology*. 1998. Vol. 90(1). P. 84—93. DOI:10.1037/0022-0663.90.1.84
5. Bartholomaeus J., Strelan P. Just world beliefs and forgiveness: The mediating role of implicit theories of relationships // *Personality and Individual Differences*. 2016. Vol. 96. P. 106—110. DOI:10.1016/j.paid.2016.02.081
6. Bartholomaeus J., Strelan P. The adaptive, approach-oriented correlates of belief in a just world for the self: A review of the research // *Personality and Individual Differences*. 2019. Vol. 151. P. 109—185. DOI:10.1016/j.paid.2019.06.028
7. Cialdini R.B., Kallgren C.A., Reno R.R. A focus theory of normative conduct: Theoretical refinement and reevaluation of the role of norms in human behavior // *Advances in Experimental Social Psychology*. 1991. Vol. 24. P. 201—243. DOI:10.1016/s0065-2601(08)60330-5
8. Dalbert C., Stoeber J. The personal belief in a just world and domain-specific beliefs about justice at school and in the family: A longitudinal study with adolescents // *International Journal of Behavioral*

- Development. 2006. Vol. 30(3). P. 200—207. DOI:10.1177/0165025406063638
9. *Donat M., Dalbert C., Kamble S.V.* Adolescents' cheating and delinquent behavior from a justice-psychological perspective: The role of teacher justice // *European Journal of Psychology of Education*. 2014. Vol. 29(4). P. 635—651. DOI:10.1007/s10212-014-0218-5
10. *Fischbacher U., Föllmi-Heusi F.* Lies in disguise—an experimental study on cheating // *Journal of the European Economic Association*. 2013. Vol. 11(3). P. 525—547. DOI:10.1111/jea.12014
11. *Furnham A.* Belief in a just world: Research progress over the past decade // *Personality and Individual Differences*. 2003. Vol. 34(5). P. 795—817. DOI:10.1016/S0191-8869(02)00072-7
12. *Lerner M.J.* Integrating societal and psychological rules of entitlement: The basic task of each social actor and fundamental problem for the social sciences // *Social Justice Research*. 1987. Vol. 1(1). P. 107—125. DOI:10.1007/bf01049386
13. *Lipkusa I.M., Dalbert C., Siegler I.C.* The importance of distinguishing the belief in a just world for self-versus for others: Implications for psychological well-being // *Personality and Social Psychology Bulletin*. 1996. Vol. 22(7). P. 666—677. DOI:10.1177/0146167296227002
14. *Maloshonok N., Shmeleva E.* Factors influencing academic dishonesty among undergraduate students at Russian universities // *Journal of Academic Ethics*. 2019. Vol. 17(3). P. 313—329. DOI:10.1007/s10805-019-9323-y
15. *Manning M.* The effects of subjective norms on behaviour in the theory of planned behaviour: A meta-analysis // *British journal of social psychology*. 2019. Vol. 48(4). P. 649—705. DOI:10.1348/014466608x393136
16. *McCabe D.L., Treviño L.K., Butterfield K.D.* Cheating in academic institutions: A decade of research // *Ethics & Behavior*. 2001. Vol. 11(3). P. 219—232. DOI:10.1207/s15327019eb1103\_2
17. *Münscher S., Donat M., Ucar G.K.* Students' Personal Belief in a Just World, Well-Being, and Academic Cheating: A Cross-National Study // *Social Justice Research*. 2020. Vol. 33(4). P. 428—453. DOI:10.1007/s11211-020-00356-7
18. *Murdock T.B., Anderman E.M.* Motivational perspectives on student cheating: Toward an integrated model of academic dishonesty // *Educational psychologist*. 2006. Vol. 41(3). P. 129—145. DOI:10.1207/s15326985ep4103\_1
19. *Sabbagh C.* Self-reported academic performance and academic cheating: Exploring the role of the perceived classroom (in) justice mediators // *British Journal of Educational Psychology*. 2021. Vol. 91(4). P. 1517—1536. DOI:10.1111/bjep.12433
20. *Sutton R.M., Douglas K.M.* Justice for all, or just for me? More evidence of the importance of the self-other distinction in just-world beliefs // *Personality and Individual Differences*. 2005. Vol. 39(3). P. 637—645. DOI:10.1016/j.paid.2005.02.010
21. *Sutton R.M., Stoeber J., Kamble S.V.* Belief in a just world for oneself versus others, social goals, and subjective well-being // *Personality and Individual Differences*. 2017. Vol. 113. P. 115—119. DOI:10.1016/j.paid.2017.03.026

### **Информация об авторах**

*Улыбина Елена Викторовна*, доктор психологических наук, профессор кафедры общей психологии, ФГБОУ ВО «Российская академия народного хозяйства и государственной службы при Президенте Российской Федерации» (ФГБОУ ВО РАНХиГС), г. Москва, Российская Федерация, ORCID: <https://orcid.org/0000-0002-5398-9006>, e-mail: [evulbn@gmail.com](mailto:evulbn@gmail.com)

*Токарева Александра Алексеевна*, аспирант кафедры общей психологии, ФГБОУ ВО «Российская академия народного хозяйства и государственной службы при Президенте Российской Федерации» (ФГБОУ ВО РАНХиГС), г. Москва, Российская Федерация, ORCID: <https://orcid.org/0000-0002-3183-357X>, e-mail: [tokareva\\_aa@bk.ru](mailto:tokareva_aa@bk.ru)

### **Information about the authors**

*Elena V. Ulybina*, Doctor of Psychology, Professor, Russian Presidential Academy of National Economy and Public Administration under the President of the Russian Federation, Moscow, Russia, ORCID: <https://orcid.org/0000-0002-5398-9006>, e-mail: [evulbn@gmail.com](mailto:evulbn@gmail.com)

*Aleksandra A. Tokareva*, PhD Student, Russian Presidential Academy of National Economy and Public Administration under the President of the Russian Federation, Moscow, Russia, ORCID: <https://orcid.org/0000-0002-3183-357X>, e-mail: [tokareva\\_aa@bk.ru](mailto:tokareva_aa@bk.ru)

Получена 23.03.2022

Received 23.03.2022

Принята в печать 30.06.2022

Accepted 30.06.2022

# An Individual-Intellectual Model of Students' Academic Achievement (Based on Humanitarian Specializations)

**Leonid Ya. Dorfman**

Perm State Institute of Culture, Perm, Russia

ORCID: <https://orcid.org/0000-0001-8494-5674>, e-mail: [dorfman07@yandex.ru](mailto:dorfman07@yandex.ru)

**Alexey Yu. Kalugin**

Perm State Humanitarian Pedagogical University, Perm, Russia

ORCID: <https://orcid.org/0000-0002-3633-2926>, e-mail: [kaluginau@yandex.ru](mailto:kaluginau@yandex.ru)

Any educational institution implementing the Federal State Educational Standards (FSES) is faced with the task of forming the necessary competencies in students. The level of competence formation is reflected, among other things, in academic achievement. Despite the interest in this topic among scientists, the indirect effects of multilevel individual traits on students' academic achievements have not yet considered through intelligence and creativity in detail. In this study, individual-intellectual models tested students' academic achievement. The sample consisted of 415 students of Perm city universities aged 17 to 22 years, 293 female and 122 male. Structural equation modeling was in use for shared and partial groups. The main obtained results were as follows. In the shared models, none of psychometric intelligence and psychometric creativity variables served mediators between the individual traits and academic achievement. In the partial models, fluid intelligence and fluency also did not operate as mediators. Three partial models were fit the data in respect with the mediation structure. Crystallized intelligence, originality, and flexibility acted as separate mediators. The mediator models entered the individual traits: excitation (nervous system), activity (temperament), open-mindedness, belonged self (personality). Mediator effects were observed under different Compositions and combinations of individual traits. Thus, a number of individual-intellectual integrations received empirical support for students' academic achievement.

**Keywords:** traits of individuality, psychometric intelligence, psychometric creativity, academic achievement, mediation model.

---

**Funding.** The reported study was funded by the Russian Foundation for Basic Research (RFBR), project number 19-29-07046.

**For citation:** Dorfman L.Ya., Kalugin A.Yu. An Individual-Intellectual Model of Students' Academic Achievement (Based on Humanitarian Specializations). *Psikhologicheskaya nauka i obrazovanie = Psychological Science and Education*, 2022. Vol. 27, no. 4, pp. 68—76. DOI: <https://doi.org/10.17759/pse.2022270407> (In Russ.).

# Индивидуально-интеллектуальная модель академических достижений студентов (на материале гуманитарных специальностей)

**Дорфман Л.Я.**

ФГБОУ ВО «Пермский государственный институт культуры» (ФГБОУ ВО ПГИК), г. Пермь, Российская Федерация

ORCID: <https://orcid.org/0000-0001-8494-5674>, e-mail: [dorfman07@yandex.ru](mailto:dorfman07@yandex.ru)

**Калугин А.Ю.**

ФГБОУ ВО «Пермский государственный гуманитарно-педагогический университет» (ФГБОУ ВО ПГГПУ), г. Пермь, Российская Федерация

ORCID: <https://orcid.org/0000-0002-3633-2926>, e-mail: [kaluginau@yandex.ru](mailto:kaluginau@yandex.ru)

В статье обращается внимание на тот факт, что перед любым образовательным учреждением, реализующим ФГОС, стоит задача формирования необходимых компетенций у обучающихся. Уровень сформированности компетенций находит отражение в том числе в академической успеваемости. Авторы отмечают, что, несмотря на интерес к данной теме среди ученых, до сих пор не были детально рассмотрены опосредованные эффекты разноуровневых свойств индивидуальности на академические достижения студентов через интеллект и креативность. В представленном исследовании строились индивидуально-интеллектуальные модели академической успеваемости студентов, полученные на выборке 415 студентов высших учебных заведений г. Перми, из них 293 девушки и 122 юноши в возрасте от 17 до 22 лет. Применялось структурное моделирование. Тестировались 2 группы моделей: общие и частные. Отмечается, что в группе общих моделей ни один из вариантов переменных психометрического интеллекта и психометрической креативности, взятых совместно, не выполнял роль медиаторов между свойствами индивидуальности и академической успеваемостью. В группе частных моделей флюидный интеллект и беглость тоже не выполняли роль медиаторов. Пригодными и медиаторными были 3 частные модели с участием кристаллизованного интеллекта, оригинальности, гибкости как медиаторов, взятых отдельно. В медиаторные модели вошли свойства индивидуальности: возбуждение (нервная система), активность (темперамент), открытость опыту, вторящее Я, доброжелательность (личность). Медиаторные эффекты наблюдались при разном составе и сочетании свойств индивидуальности. Таким образом, в ряде случаев индивидуально-интеллектуальные интеграции применительно к академической успеваемости получили эмпирическую поддержку.

**Ключевые слова:** свойства индивидуальности, психометрический интеллект, психометрическая креативность, академическая успеваемость, медиаторная модель.

**Финансирование.** Исследование выполнено при финансовой поддержке Российского фонда фундаментальных исследований (РФФИ) в рамках научного проекта № 19-29-07046.

**Для цитаты:** Дорфман Л.Я., Калугин А.Ю. Индивидуально-интеллектуальная модель академических достижений студентов (на материале гуманитарных специальностей) // Психологическая наука и образование. 2022. Том 27. № 4. С. 68—76. DOI: <https://doi.org/10.17759/pse.2022270407>

## Introduction

The problem of nurturing academic achievement among students is multidimensional; many factors are involved. Academic achievement comes in different types: grade point average; the results of subject Olympiads; the results of the Unified State Exam; initial, intermediate, and final assessments (in the form of seminars, tests, exams), etc. Nevertheless, various internal and external factors can be predictors of students' academic achievement. Internal factors include motivation toward achievement and academic motivation [15], intelligence level [10; 17], critical, reflective, and creative thinking [13], academic self-efficacy [20], personality traits [17; 20], hope and optimism [18], psychological maturity [17], etc. External factors include socioeconomic status and type of school [21], upbringing [16], parental involvement [22], etc.

Individual traits, psychometric intelligence, and psychometric creativity as joint predictors of students' academic achievement remain important, but problematic and insufficiently studied. These constructs are heterogeneous, have different theoretical backgrounds, and there are conceptual barriers between them. In order to include them in a joint study, it is necessary to find out the conditions under which they can fit into a common theoretical background [4]. One of the prerequisites for posing this problem is likely cross-theoretical integration [Ibid.].

The theoretical basis of this empirical study is an integration of the theories of V.S. Merlin [8] and D.V. Ushakov [12] (see details [5]). The mechanism of mediation is the locus of integration between the two theories. Psychometric intelligence and psychometric creativity act as mediating links between students' individual traits and academic achievement. Although there are studies devoted to some aspects of the relationship between the indicators mentioned [7; 10; 17; 20], these studies affect only

some aspects of individuality. The cumulative effect of multilevel traits has not actually been tested.

Some studies use complex mediator models to uncover the factors supporting academic achievement [14]. Nevertheless, the mediative function that both psychometric intelligence and creativity have between students' individual multilevel traits and academic achievement remains largely beyond researchers' attention.

The aim of the study was to build and examine an individual-intellectual model of the academic achievement of university students who were engaged in humanitarian work.

The following empirical hypotheses were tested:

1. Psychometric intelligence and psychometric (verbal) creativity selectively mediate between students' individual multilevel traits and their academic achievement.
2. Individual multilevel traits are included in varieties of mediator models selectively.
3. Psychometric intelligence and psychometric (verbal) creativity provide not one, but several ways to jointly activate the mediators between the students' individual multilevel traits and their academic achievement.

## Method

### *Participants*

The study involved 415 students from higher educational institutions in Perm, including 293 females and 122 males aged 17 to 22 years ( $M = 18.6$ ,  $SD = 1.0$ ).

### *Measures*

We studied the nervous system, temperament, and personality as multilevel traits of integral individuality [8]. A Russian adaptation of the Pavlovian Temperament Survey by J. Strelau was used to measure the nervous system [3]. A Russian adaptation of the Formal Characteristics of Behav-

our — Temperament Inventory by J. Strelau was used to measure temperament [11]. A Russian adaptation of the Big Five Inventory-2 by C.J. Soto and O.P. John was used to measure personality traits [19]. The Four-Factor Self Questionnaire by L.Ya. Dorfman [6] was used to measure the self-concept.

A Russian adaptation of Guilford's Alternate Uses was used to assess psychometric (verbal) creativity [1]. Raven's Progressive Matrices [9] was used to measure fluid intelligence. The Universal Intellectual Test by N. A. Baturin and N. A. Kurgansky [2] was used to measure crystallized intelligence.

The average of students' annual grades in all disciplines was computed to determine academic achievement. A five-point grading scale (exams) was used.

#### *Data analysis*

Individual multilevel traits were included in models as exogenous variables, psychometric intelligence and psychometric (verbal) creativity as mediator variables, and academic achievement as an endogenous variable. In addition, the covariances of the exogenous variables was entered into the models.

All individual traits initially were included in the model and then, one by one, those that least related to the mediator were excluded from the model. In the final model, there were only significant paths between variables.

The models for shared and partial groups differed. Shared models included 3 feasible candidate mediators: a) crystallized and fluid intelligence together ( $M_1$ ); b) fluency, flexibility, and originality of creativity jointly ( $M_2$ ); and c) intelligence (crystallized and fluid) and verbal creativity (fluency, flexibility, originality) jointly ( $M_3$ ). The partial models included crystallized ( $M_4$ ) and fluid ( $M_5$ ) intelligence, fluency ( $M_6$ ), flexibility ( $M_7$ ), and originality ( $M_8$ ) creativity separately as candidates for mediators.

Model fit indices were the chi-square statistic ( $\chi^2$ ), the chi-square to df ratio ( $\chi^2/df$ ), the Comparative Fit Index (CFI), and the Root Mean Square Error of Approximation (RMSEA). Additionally, the Akaike Information Criterion (AIC) and the Bayesian Information Criterion (BIC) were used.

Structural equation modeling data was tested in IBM SPSS AMOS v.22.

## **Results**

When testing the shared models,  $M_1$  and  $M_3$  were low fit indices according to the ratio of chi-square statistics to degrees of freedom ( $\chi^2/df > 2$ ). Hence, these models are not mediator models. The  $M_2$  model fit perfectly (RMSEA < 0.05, CFI > 0.95). The path coefficients from exogenous variables to candidate mediator variables were significant, but non-significant from the former to the endogenous variable. This means that this model cannot be as a mediator model either.

When the partial models were tested, models  $M_4$  and  $M_5$  were perfect fit indices (RMSEA < 0.05, CFI > 0.95). In these models, the path coefficients from exogenous variables to fluid intelligence and fluency were significant, but non-significant from the former to the endogenous variable. So, fluid intelligence and fluency did not serve as mediators in these models.

The  $M_6$ ,  $M_7$ , and  $M_8$  models were perfectly fit as Table 1 shows.

In these models, the path coefficients from exogenous variables to crystallized intelligence, originality, and flexibility were significant, and also significant from the former to the endogenous variable. Hence, crystallized intelligence, originality, and flexibility served as mediators in these models (Fig. 1—3).

## **Discussion**

The models distinguished between the shared and partial groups. In the shared models, psychometric intelligence and psy-



Table 1

Partial model fit indices  $M_6, M_7, M_8$

Partial models	Model fit indices							
	$\chi^2$	df	p	$\chi^2 / df$	CFI	RMSEA	AIC	BIC
$M_6$ . Crystallized intelligence as a mediator	1.99	6	0.92	0.33	1.00	0.001	32.0	92.4
$M_7$ . Originality as a mediator	0.60	1	0.44	0.60	1.00	0.001	10.6	30.7
$M_8$ . Flexibility as a mediator	2.30	2	0.32	1.15	0.99	0.02	18.3	50.5

Note:  $\chi^2$  — chi-square statistic value; df — degrees of freedom; p — significance level;  $\chi^2 / df$  — relative chi-square; CFI — Comparative Fit Index; RMSEA — Root Mean Square Error of Approximation; AIC — Akaike Information Criterion; BIC — Bayesian Information Criterion.

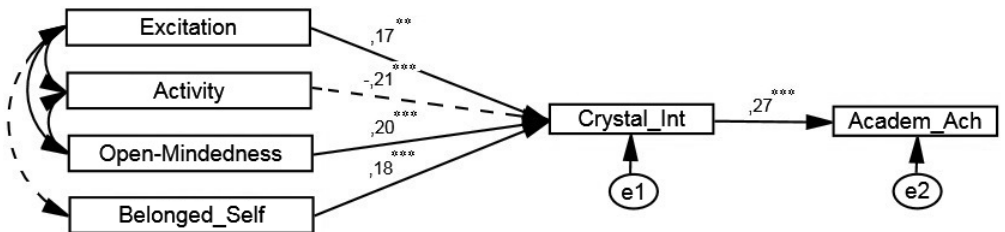


Fig. 1. The  $M_6$  model with crystallized intelligence as a mediator:

Crystal\_Int — crystallized intelligence; Academ\_Ach — academic achievement (grade point average); solid lines with arrows — paths with significant positive coefficients; dashed lines with arrows — paths with significant negative coefficients; solid arcs with arrows — significant positive correlations between personality traits; dashed arcs with arrows — significant negative correlations between personality traits; \* —  $p < 0.05$ , \*\* —  $p < 0.01$ , \*\*\* —  $p < 0.001$ .

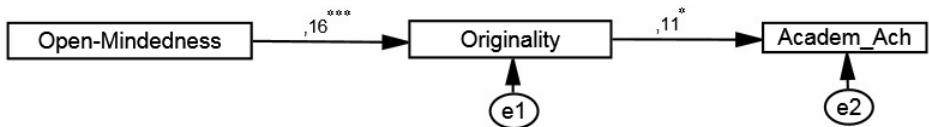


Fig. 2. Model  $M_7$  with originality as a mediator: see Note to Fig. 1.

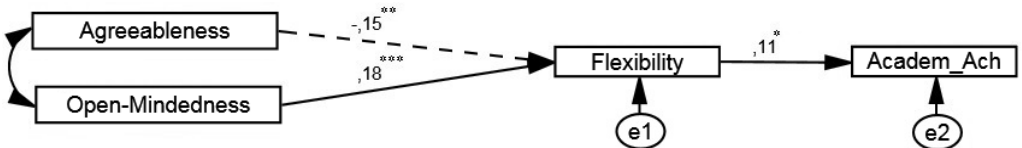


Fig. 3. Model  $M_8$  with flexibility as a mediator: see Note to Fig. 1.

chometric (verbal) creativity variables taken together did not mediate the individual traits or academic achievement. In the partial models, fluid intelligence and fluency did not

act as mediators either. The partial models involving crystallized intelligence, originality, and flexibility taken separately were suitable and mediational. The mediator effects var-

ied in the composition and combination of individual traits.

In some cases, the partial models supported the claim of individual-intellectual integrations. Several of the students' individual traits, psychometric intelligence, and psychometric (verbal) creativity served as predictors of academic achievement. The data support the hypothesis that psychometric intelligence and psychometric (verbal) creativity selectively serve as mediators between individual traits and academic achievement.

Such individual multilevel traits as excitation (nervous system), activity (temperament), belonged self, open-mindedness, and agreeableness (personality) represented the exogenous variables. Other individual traits were not included in mediator models as exogenous variables at a significant level. Crystallized intelligence, originality, and flexibility served mediators in the models, but fluid intelligence and fluency were not significant mediators. Thus, one can assume that some personality traits, varieties of psychometric intelligence, and indicators of psychometric (verbal) creativity yield integrations that are specific and rely on variables, their composition and structure.

The finding above supports the hypothesis that mediation models selectively differ in individual multilevel traits, psychometric intelligence, and psychometric (verbal) creativity. They exhibit not one, but several methods of mediation. Therefore, the basis for their integration can be dynamic.

### Conclusion

The mediation models included individual traits in their various combinations. The model with crystallized intellect as a mediator included multilevel individual traits: exci-

tation (nervous system), activity (temperament), open-mindedness, and belonged self (personality); the model with originality as a mediator included open-mindedness (personality); the model with flexibility as a mediator included agreeableness and open-mindedness (personality). This may mean that the properties of individuality can be included in different mediation models by changing their compositions and structures. Within the mediator models, individuality reveals the ability, to varying degrees, to replace some traits with others. This means that generally, individual traits present a dynamic structure when they enter mediator models.

The results have practical importance. They have made it possible to identify among the properties of individuality, psychometric intelligence, and psychometric (verbal) creativity the factors that make the most significant contributions to the students' academic achievement.

### Limitations and perspectives of the study

Psychometric creativity was studied in only one aspect — verbal creativity, so we cannot extend the results to other types of creativity.

The study involved predominantly girls, which is consistent with the sex ratio in the humanities but does not allow the results to be extrapolated to the wider population. In this regard, gender alignment and the study of gender specificity, may become a promising area of research.

In the future, it is necessary to consider individual-intellectual integrations not only among representatives of the humanities but also to study those in technical, natural science, military, and other areas of training.

### References

1. Averina I.S., Shcheblanova E.I. Verbal'nyy test tvorcheskogo myshleniya «Neobychnoe ispol'zovanie» [Verbal Test of Creative Thinking "Unusual Use"]. Moscow: Sobor, 1996. 60 p. (In Russ.).

2. Baturin N.A., Kurganskiy N.A. Kratkoe rukovodstvo po Universal'nomu intellektual'nomu testu (UIT SPCh) [A Quick Guide to the Universal Intelligent Test]. Saint Petersburg, 1995. 19 p. (In Russ.).

3. Danilova N.P., Shmelev A.G. Test-oprosnik Strelyau [Strelyau's survey]. *Praktikum po psikhodiagnostike [Psychodiagnostic workshop. Psychological methods]*. Moscow: MGU Publ., 1988, pp. 4—10. (In Russ.).
4. Dorfman L.Ya., Kalugin A.Yu. Individual'no-intellektual'nyye integratsii cheloveka [Individual-intellectual integration of a person]. Moscow: Institute of psychology of RAS, 2021. 279 p. (In Russ.).
5. Dorfman L.Ya., Kalugin A.Yu. Sootnosheniye resursov, potentsialov i akademicheskikh dostizheniy studentov. Soobshcheniye 2. Ot differentsiatsii k integratsii resursov i potentsialov akademicheskikh dostizheniy studentov [Resources, potentials and academic achievements of students. Part 2. From differentiation to integration of resources, potentials and academic achievements of students]. *Obrazovanie i nauka [The Education and Science Journal]*, 2020. Vol. 22, no. 5, pp. 90—110. DOI:10.17853/1994-5639-2020-5-90-110 (In Russ.).
6. Dorfman L.Ya., Kalugin A.Yu. Chetyrekhfaktornyy oprosnik Ya: ego kontseptual'nyy i psikhometricheskyy analiz [The four-factor self questionnaire: its theoretical and psychometric properties]. *Sibirskiy psikhologicheskyy zhurnal [Siberian Journal of Psychology]*, 2020, no. 75, pp. 53—74. DOI:10.17223/17267080/75/4 (In Russ.).
7. Koval'chuk I.A., Sochivko D.V. Spetsificheskie sistemoobrazuyushchie svoystva intellektual'no-lichnostnogo potentsiala sotrudnikov FSIN Rossii na nachal'nom etape sluzhebnoy deyatelnosti [Specific system-forming properties of intellectual-personal potential of employees of the Federal Penitentiary Service of Russia at the initial stage of official activity]. *Psikhologo-pedagogicheskie issledovaniya = Psychological-Educational Studies*, 2020. Vol. 12, no. 2, pp. 127—143. DOI:10.17759/psyedu.2020120208 (In Russ.).
8. Merlin V.S. Ocherk integral'nogo issledovaniya individual'nosti [Essay on the Integral study of individuality]. Moscow: Pedagogika, 1986. 256 p. (In Russ.).
9. Raven Dzh.K., Kurt Dzh.Kh., Raven Dzh. Rukovodstvo k progressivnym matritsam Ravena i slovarnym shkalam. Razd. 1. Obshchaya chast' rukovodstva [Manual for Raven's progressive matrices and vocabulary scales. Section 1. General overview]. Moscow: Kogito-Tsentr, 1997. 82 p. (In Russ.).
10. Rzhanova I.E., Alekseeva O.S., Burdukova Yu.A. Uspeshnost' v obuchenii: vzaimosvyaz' flyuidnogo intellekta i rabochey pamyati [Successful learning: relationship between fluid intelligence and working memory]. *Psikhologicheskaya nauka i obrazovanie = Psychological Science and Education*, 2020. Vol. 25, no. 1, pp. 63—74. DOI:10.17759/pse.2020250106 (In Russ.).
11. Strelyau Ya., Mitina O., Zavadskiy B., Babaeva Yu., Menchuk T. Metodika diagnostiki temperamenta (formal'no-dinamicheskikh kharakteristik povedeniya) [Method for diagnosing temperament (formal and dynamic characteristics of behavior)]. Moscow: Smysl, 2009. 104 p. (In Russ.).
12. Ushakov D.V. Psikhologiya intellekta i odarennosti [Psychology of intelligence and giftedness]. Moscow: Institut psikhologii RAN, 2011. 464 p. (In Russ.).
13. Akpur U. Critical, reflective, creative thinking and their reflections on academic achievement. *Thinking Skills and Creativity*, 2020. Vol. 37, pp. 100683. DOI:10.1016/j.tsc.2020.100683
14. Alhadabi A., Karpinski A.C. Grit, self-efficacy, achievement orientation goals, and academic performance in University students. *International Journal of Adolescence and Youth*, 2020. Vol. 25(1), pp. 519—535. DOI:10.1080/02673843.2019.1679202
15. Anderman E.M. Achievement motivation theory: Balancing precision and utility. *Contemporary Educational Psychology*, 2020. Vol. 61, pp. 101864. DOI:10.1016/j.cedpsych.2020.101864
16. Howard J.M., Nicholson B.C., Chesnut S.R. Relationships between positive parenting, overparenting, grit, and academic success. *Journal of College Student Development*, 2019. Vol. 60(2), pp. 189—202. DOI:10.1353/csd.2019.0018
17. Morales-Vives F., Camps E., Dueñas J.M. Predicting academic achievement in adolescents: The role of maturity, intelligence and personality. *Psicothema*, 2020. Vol. 32(1), pp. 84—91. DOI:10.7334/psicothema2019.262
18. Rand K.L., Shanahan M.L., Fischer I.C., Fortney S.K. Hope and optimism as predictors of academic performance and subjective well-being in college students. *Learning and Individual Differences*, 2020. Vol. 81, pp. 101906. DOI:10.1016/j.lindif.2020.101906
19. Shchebetenko S., Kalugin A.Y., Mishkevich A.M., Soto C.J., John O.P. Measurement Invariance and Sex and Age Differences of the Big Five Inventory—2: Evidence From the Russian Version. *Assessment*, 2020. Vol. 27(3), pp. 472—486. DOI:10.1177/1073191119860901
20. Stajković A., Bandura A., Locke E., Lee D., Sergent K. Test of three conceptual models of influence of the big five personality traits and self-efficacy on academic performance: A meta-analytic path-analysis. *Personality and Individual Differences*, 2018. Vol. 120, pp. 238—245. DOI:10.1016/j.paid.2017.08.014
21. Suna H.E., Tanberkan H., Gür B., Perc M., Özer M. Socioeconomic status and school type as predictors of academic achievement. *Journal of Economy Culture and Society*, 2020, no. 61, pp. 41—64. DOI:10.26650/JECS2020-0034
22. Veas A., Castejón J.L., Miñano P., Gilar-Corbí R. Relationship between parent involvement and academic achievement through metacognitive strategies: A multiple multilevel mediation analysis. *British journal of educational psychology*, 2019. Vol. 89(2), pp. 393—411. DOI:10.1111/bjep.12245

### Литература

1. Аверина И.С., Щепланова Е.И. Вербальный тест творческого мышления «Необычное использование». М.: Соброрь, 1996. 60 с.
2. Батурич Н.А., Курганский Н.А. Краткое руководство по Универсальному интеллектуальному тесту (УИТ СПЧ): Челябинск — Санкт-Петербург. СПб., 1995. 19 с.
3. Данилова Н.П., Шмелев А.Г. Тест-опросник Стреляу // Практикум по психодиагностике. М.: Изд-во МГУ, 1988. С. 4—10.
4. Dorfman L.Ya., Kalugin A.Yu. Индивидуально-интеллектуальные интеграции человека. М.: Изд-во «Институт психологии РАН», 2021. 279 с. DOI:10.380098/mng\_21\_0438
5. Dorfman L.Ya., Kalugin A.Yu. Соотношение ресурсов, потенциалов и академических достижений студентов. Сообщение 2. От дифференциации к интеграции ресурсов и потенциалов академических достижений студентов // Образование и наука. 2020. Том 22. № 5. С. 90—110. DOI:10.17853/1994-5639-2020-5-90-110
6. Dorfman L.Ya., Kalugin A.Yu. Четырехфакторный опросник Я: его концептуальный и психометрический анализ // Сибирский психологический журнал. 2020. № 75. С. 53—74. DOI:10.17223/17267080/75/4
7. Ковальчук И.А., Сочивко Д.В. Специфические системообразующие свойства интеллектуально-личностного потенциала сотрудников ФСИН России на начальном этапе служебной деятельности // Психолого-педагогические исследования. 2020. Том 12. № 2. С. 127—143. DOI:10.17759/psyedu.2020120208
8. Мерлин В.С. Очерк интегрального исследования индивидуальности. М.: Педагогика, 1986. 256 с.
9. Равен Дж.К., Курт Дж.Х., Равен Дж. Руководство к прогрессивным матрицам Равена и словарным шкалам. Разд. 1. Общая часть руководства. М.: Когито-Центр, 1997. 82 с.
10. Ржанова И.Е., Алексеева О.С., Бурдукова Ю.А. Успешность в обучении: взаимосвязь флюидного интеллекта и рабочей памяти // Психологическая наука и образование. 2020. Том 25. № 1. С. 63—74. DOI:10.17759/pse.2020250106
11. Стреляу Я., Митина О., Завадский Б., Бабаева Ю., Менчук Т. Методика диагностики темперамента (формально-динамических характеристик поведения). М.: Смысл, 2009. 104 с.
12. Ушаков Д.В. Психология интеллекта и одаренности. М.: Институт психологии РАН, 2011. 464 с.
13. Akpur U. Critical, reflective, creative thinking and their reflections on academic achievement // Thinking Skills and Creativity. 2020. Vol. 37. P. 100683. DOI:10.1016/j.tsc.2020.100683
14. Alhadabi A., Karpinski A.C. Grit, self-efficacy, achievement orientation goals, and academic performance in University students // International Journal of Adolescence and Youth. 2020. Vol. 25(1). P. 519—535. DOI:10.1080/02673843.2019.1679202
15. Anderman E.M. Achievement motivation theory: Balancing precision and utility // Contemporary Educational Psychology. 2020. Vol. 61. P. 101864. DOI:10.1016/j.cedpsych.2020.101864
16. Howard J.M., Nicholson B.C., Chesnut S.R. Relationships between positive parenting, overparenting, grit, and academic success // Journal of College Student Development. 2019. Vol. 60(2). P. 189—202. DOI:10.1353/csd.2019.0018
17. Morales-Vives F., Camps E., Dueñas J.M. Predicting academic achievement in adolescents: The role of maturity, intelligence and personality // Psicothema. 2020. Vol. 32(1). P. 84—91. DOI:10.7334/psicothema2019.262
18. Rand K.L., Shanahan M.L., Fischer I.C., Fortney S.K. Hope and optimism as predictors of academic performance and subjective well-being in college students // Learning and Individual Differences. 2020. Vol. 81. P. 101906. DOI:10.1016/j.lindif.2020.101906
19. Shchebetenko S., Kalugin A.Y., Mishkevich A.M., Soto C.J., John O.P. Measurement Invariance and Sex and Age Differences of the Big Five Inventory—2: Evidence From the Russian Version // Assessment. 2020. Vol. 27(3). P. 472—486. DOI:10.1177/1073191119860901
20. Stajković A., Bandura A., Locke E., Lee D., Sergeant K. Test of three conceptual models of influence of the big five personality traits and self-efficacy on academic performance: A meta-analytic path-analysis // Personality and Individual Differences. 2018. Vol. 120. P. 238—245. DOI:10.1016/j.paid.2017.08.014
21. Suna H.E., Tanberkan H., Gür B., Perc M., Özer M. Socioeconomic status and school type as predictors of academic achievement // Journal of Economy Culture and Society. 2020. № 61. P. 41—64. DOI:10.26650/JECS2020-0034
22. Veas A., Castejón J.L., Miñano P., Gilar-Corbi R. Relationship between parent involvement and academic achievement through metacognitive strategies: A multiple multilevel mediation analysis // British journal of educational psychology. 2019. Vol. 89(2). P. 393—411. DOI:10.1111/bjep.12245

### Information about the authors

Leonid Ya. Dorfman, Doctor of Psychology, Professor, Head of the Department of Humanities, Perm State Institute of Culture, Perm, Russia, ORCID: <https://orcid.org/0000-0001-8494-5674>, e-mail: [dorfman07@yandex.ru](mailto:dorfman07@yandex.ru)

Alexey Yu. Kalugin, PhD in Psychology, Associate Professor, Head of the Department of Practical Psychology, Perm State Humanitarian Pedagogical University, Perm, Russia, ORCID: <https://orcid.org/0000-0002-3633-2926>, e-mail: [kaluginau@yandex.ru](mailto:kaluginau@yandex.ru)

**Информация об авторах**

*Дорфман Леонид Яковлевич*, доктор психологических наук, профессор, заведующий кафедрой гуманитарных дисциплин, ФГБОУ ВО «Пермский государственный институт культуры» (ФГБОУ ВО ПГИК), г. Пермь, Российская Федерация, ORCID: <https://orcid.org/0000-0001-8494-5674>, e-mail: dorfman07@yandex.ru

*Калугин Алексей Юрьевич*, кандидат психологических наук, доцент, заведующий кафедрой практической психологии, ФГБОУ ВО «Пермский государственный гуманитарно-педагогический университет» (ФГБОУ ВО ПГГПУ), г. Пермь, Российская Федерация, ORCID: <https://orcid.org/0000-0002-3633-2926>, e-mail: kaluginau@yandex.ru

Получена 02.02.2021

Received 02.02.2021

Принята в печать 30.06.2022

Accepted 30.06.2022

# Barriers and Facilitators to Seeking Psychological Assistance in School Education System

**Natalia A. Antonova**

Herzen State Pedagogical University of Russia, Saint Petersburg, Russia  
ORCID: <https://orcid.org/0000-0002-5471-8902>, e-mail: [antonova.natalia11@gmail.com](mailto:antonova.natalia11@gmail.com)

**Ksenia Yu. Eritsyayn**

Herzen State Pedagogical University of Russia, Saint Petersburg, Russia  
ORCID: <https://orcid.org/0000-0002-4400-0593>, e-mail: [ksenia.eritsyan@gmail.com](mailto:ksenia.eritsyan@gmail.com)

**Tatiana V. Kazantseva**

Saint Petersburg State University, Saint Petersburg, Russia  
ORCID: <https://orcid.org/0000-0002-2540-2976>, e-mail: [tatakaz@mail.ru](mailto:tatakaz@mail.ru)

**Roman G. Dubrovsky**

Federal State Budgetary Institution “Center for the Protection of the Rights and Interest of Children”, Moscow, Russia  
ORCID: <https://orcid.org/0000-0001-9876-9798>, e-mail: [Roman.Dubrovsky@gmail.com](mailto:Roman.Dubrovsky@gmail.com)

Optimization of the models for the provision of professional psychological assistance to students is one of the priority tasks of the Concept for the development of psychological services in the education system of the Russian Federation. The aim of this study was to identify the barriers and facilitators in seeking psychological help among Russian secondary school students from the perspective of experts who provide such assistance. Two series of semi-structured interviews (before the COVID-19 pandemic and during it) with 10 experts from seven regions of the Russian Federation responsible for organizing psychological work in the region were carried out. The barriers and facilitators of help-seeking identified as a result of the thematic analysis were compared with the AAAQ model (availability, accessibility, acceptability, quality of help) (WHO, 2017). Among the barriers, a special place is held by factors associated with acceptability and the perceived quality of provided assistance. Among the facilitators, experts especially highlight the factors related to the availability and the acceptability of psychological help (knowledge of the possibilities of obtaining it, its credibility, the use of new communication technologies of with a psychologist). Associated with the pandemic waving up in psychological difficulties and the expansion of remote communication have become powerful factors in the increase of availability and acceptability of psychological services.

**Keywords:** psychological help seeking, adolescents, barriers, facilitators, mental health, youth, educational counseling service, COVID-19 pandemic.

---

**Funding.** The reported study was funded by Russian Foundation for Basic Research (RFBR), project number 19-013-00903.

**For citation:** Antonova N.A., Eritsyayn K.Yu., Kazantseva T.V., Dubrovsky R.G. Barriers and Facilitators to Seeking Psychological Assistance in School Education System. *Psikhologicheskaya nauka i obrazovanie = Psychological Science and Education*, 2022. Vol. 27, no. 4, pp. 77—87. DOI: <https://doi.org/10.17759/pse.2022270408> (In Russ.).

# Барьеры и фасилитаторы обращаемости за психологической помощью в системе общего образования

## **Антонова Н.А.**

ФГБОУ ВО «Институт психологии Российского государственного педагогического университета им. А.И. Герцена» (ФГБОУ ВО РГПУ им. А.И. Герцена),  
г. Санкт-Петербург, Российская Федерация  
ORCID: <https://orcid.org/0000-0002-5471-8902>, e-mail: antonova.natalia11@gmail.com

## **Ерицян К.Ю.**

ФГБОУ ВО «Институт психологии Российского государственного педагогического университета им. А.И. Герцена» (ФГБОУ ВО РГПУ им. А.И. Герцена),  
г. Санкт-Петербург, Российская Федерация  
ORCID: <https://orcid.org/0000-0002-4400-0593>, e-mail: ksenia.eritsyan@gmail.com

## **Казанцева Т.В.**

ФГБОУ ВО «Санкт-Петербургский государственный университет»  
(ФГБОУ ВО СПбГУ), г. Санкт-Петербург, Российская Федерация  
ORCID: <https://orcid.org/0000-0002-2540-2976>, e-mail: tatakaz@mail.ru

## **Дубровский Р.Г.**

ФГБУ «Центр защиты прав и интересов детей», г. Москва, Российская Федерация  
ORCID: <https://orcid.org/0000-0001-9876-9798>, e-mail: Roman.Dubrovsky@gmail.com

Отмечается, что оптимизация моделей предоставления профессиональной психологической помощи учащимся — одна из приоритетных задач Концепции развития психологической службы в системе образования Российской Федерации. Авторы считают, что, несмотря на давнее функционирование системы психологической помощи в структуре среднего образования, уровень обращаемости за ней остается низким. Целью исследования было изучение барьеров и фасилитаторов обращения за психологической помощью учащихся российской средней школы с позиции специалистов, реализующих оказание такой помощи. Авторами проведены 2 серии полуструктурированных интервью (до пандемии COVID-19 и в условиях пандемии) с 10 специалистами, выступающими в роли экспертов и представляющими семь регионов Российской Федерации. Отмечается, что каждый из них являлся ответственным за организацию психологической работы в регионе. Выявленные в результате тематического анализа барьеры и фасилитаторы обращаемости были сопоставлены с моделью оценки помощи AAAQ (наличие, доступность, приемлемость, качество помощи) (ВОЗ, 2017). Результаты исследования показывают, что среди барьеров особое место занимают факторы, связанные с приемлемостью и качеством оказываемой помощи. Среди фасилитаторов выделены факторы, связанные с доступностью и приемлемостью психологической помощи (знание о возможностях ее получения, доверие к ней, использование новых технологий коммуникации с психологом). Связанные с пандемией рост психологических проблем и распространенность дистанционных форм коммуникации явились мощным фактором роста доступности и приемлемости психологических услуг.

**Ключевые слова:** обращаемость за психологической помощью, подростки, барьеры, фасилитаторы, психическое здоровье, молодежь, психологическая служба в образовании, пандемия COVID-19.

**Финансирование.** Статья подготовлена в рамках работы по гранту Российского фонда фундаментальных исследований (РФФИ) № 19-013-00903 «Факторы обращаемости за профессиональной психологической помощью молодежи: разработка и эмпирическая верификация модели».

**Для цитаты:** Антонова Н.А., Ерицыан К.Ю., Казанцева Т.В., Дубровский Р.Г. Барьеры и факторы обращаемости за психологической помощью в системе общего образования // Психологическая наука и образование. 2022. Том 27. № 4. С. 77—87. DOI: <https://doi.org/10.17759/pse.2022270408>

## Introduction

All over the world, including in Russia, significant efforts are being made to improve psychological support in education [3; 11]. Increasingly, both in Russia and abroad, school psychologists are considered as important service providers of mental health care for children and adolescents [7; 19]. The WHO notes that “half of all mental health disorders occur before the age of 14” [15]. The leading role in recognizing psychological distress in students belongs to psychologists working within the education system. Psychologists are also entrusted with preventive tasks to help strengthening the health of children and creating conditions for their harmonious development in accordance with the biopsychosocial ecological model [18].

In accordance with the law “On Education in the Russian Federation” [5], the powers to organize the provision of psychological, pedagogical, medical and social assistance to children are assigned to regional and municipal authorities. Despite the existence of a normative regulations on the activities of educational psychologists [3; 4], psychological support practices differ across the nation’s regions (for example, in terms of the existence of Psychological, Pedagogical, Medical and Social (PPMS) centers and coordination between them and educational psychologists). These differences may be justified by socio-cultural and territorial specifics, but may also make it difficult to ensure equal access of children to health care and preventative services.

One of the most important factors in the effectiveness of public psychological support for education is accessibility [11]. Studies show a gap between the actual usage rate and the general need for psychological help, which can reach 90.2% [8; 17]. Why such a gap exists can be answered by analyzing specific barriers to and facilitators of help seeking.

The factors determining help seeking are closely related both to the specific model of providing psychological help, and to the socio-economic and cultural context of the region in question. There have been attempts to critically analyze such models in different countries, for example, in the USA, England, and Kazakhstan [11; 13; 21]. In Russia, practically no such research has taken place [2; 6], although the study of this problem is of a high priority for the development of psychological services in the education system [3].

The objective of this study was to characterize the barriers to and facilitators of seeking psychological help among secondary school students through the eyes of the professionals who organize the provision of such help. The conceptual framework for the analysis was the AAAQ model of Core components of the right to health, developed by WHO [14]. Since education system has been transformed by the COVID-19 pandemic, describing its impact on help seeking also became relevant for the current study.

## Methods

We conducted two series of semi-structured expert interviews in the summer of



2019 (before the pandemic) and in the fall of 2021 (during the pandemic). The sample was targeted and the selection criterion for experts was the positions they held: the chief supernumerary psychologists of the region and specialists recommended by them, responsible for providing psychological support within the secondary education system. The survey involved 10 experts (8 women, 2 men) from seven regions of the Russian Federation, of which 8 experts held managerial positions, and 2 were non-managers. In the second section, 8 experts who were still working in the psychological service system at the time of the survey were re-interviewed.

The telephone interviews lasted 30 minutes on average. It should be noted that the experts did not separate referrals initiated by adolescents themselves and third parties, therefore the barriers and facilitators described characterize such help seeking in general.

Data processing was carried out using thematic analysis [9]. The selected topics were compared with four interrelated analytical categories from the AAAQ model [14; 20]:

A — Availability — a sufficient number of psychological services are provided;

A — Accessibility — the physical, economic and informational accessibility of services;

A — Acceptability — compliance of services with the standards of professional ethics, the cultural, gender and age characteristics of consumers of services, and their understanding of the the help provided;

Q — Quality — the qualifications of the psychologists and the scientific grounding of their psychological services.

The results of the study are illustrated with quotations.

## Results

The study identified certain categories of barriers and facilitators (Table 1).

### Availability

Regarding barriers to seeking psychological help, the experts highlighted the absence or irregular presence of a psychologist at school. *“The Law On Education stipulates that every child has the opportunity to receive psychological and pedagogical help, but there are no clear official requirements for the presence of a psychologist at an educational organization”* (No. 7).

The absence of a psychologist tied to a given school may hinder the development of a trusting relationship between specialists and children. *“Not a single tenth-grader girl will tell a visiting specialist that her stepfather is sexually harassing her”* (No. 3).

### Accessibility

The experts highlighted some of the barriers facing accessibility of psychological help. The first is the lack of an opportunity for children to independently seek face-to-face psychological help. *“Legislation does not allow us to work with a child under the age of 14 years old without parental permission”* (No. 4). *“When I used to work at a school, children came to me with questions, but now the child must inform their teacher, head teacher or parent that they need a psychologist, or come to me at the PPMS center. 75% of the child-psychologist’s work is lost”* (No. 3).

The second is the work overload that many school psychologists deal with due to participation in various school events (for example, monitoring) or assignments from the school administration that are not related to psychology. Experts see reasons for psychologists’ work overload in their subordination to the school administration and in the administration’s poor understanding of the possibilities offered by psychological help. *“There is no time for contact work... if they were outsourced [independent of the school administration], it would be better”* (No. 3). *“We are slipping into the stereotype that the more diagnos-*

Table 1

**Barriers and facilitators of seeking psychological help by students and their parents/legal representatives in relation to the AAAQ model**  
*(Italics highlights the factors specific to the pandemic period)*

AAAQ Model Components	Barriers	Facilitators
Availability	<ul style="list-style-type: none"> <li>• Absence or irregular presence of a psychologist at school</li> </ul>	
Accessibility	<ul style="list-style-type: none"> <li>• Lack of the possibility for children under 14 years of age to seek help independently</li> <li>• Overload of a given psychologist</li> <li>• <i>Lack of software or devices for remote communication</i></li> </ul>	<ul style="list-style-type: none"> <li>• Increasing knowledge about the service</li> <li>• <i>Development of a remote format of psychological support</i></li> </ul>
Acceptability	<ul style="list-style-type: none"> <li>• Stigmatization</li> <li>• Fear of privacy violation</li> <li>• Fear of negative consequences and discrimination against the child</li> <li>• Preference for other types of help (fortunetellers, etc.)</li> <li>• <i>Counterproductive perceptions about the need for psychological help</i></li> </ul>	<ul style="list-style-type: none"> <li>• De-stigmatization of psychological help</li> <li>• Trust in the appointed psychologist</li> <li>• Utilizing relevant online forms of communication</li> <li>• <i>Increasing the anonymity of the referral</i></li> </ul>
Quality	<ul style="list-style-type: none"> <li>• Low qualification level of educational psychologists (objectively and subjectively perceived)</li> <li>• Poor perceptions of how effective the psychologist is</li> <li>• Poor infrastructure (location, equipment)</li> <li>• <i>Inherent limitations of the online counseling format</i></li> </ul>	<ul style="list-style-type: none"> <li>• Good conditions for the psychologist's work (in accordance with their position functions); <i>technical equipment for remote work</i></li> <li>• Perceived competence of the psychologist</li> </ul>

*tics a psychologist has done, the better he or she works. And the process of supporting difficult children often remains outside our purview" (No. 9).*

Among the facilitators, factors regarding informational accessibility were noted, that is, the awareness of all participants in the educational process about the possibility of obtaining psychological help. *"We send out information to educational institutions, we go to parent-teacher meetings... Parents do know about us" (No. 1).*

The pandemic, according to experts, had a positive impact, increasing the availability of psychological help thanks to an informational campaign about possible ways of receiving it remotely. It has also increased

the use of online technologies: specialists in psychological services *"developed their sites, filling them with video recordings of webinars" (No. 5).*

The remote provision of psychological support evens out territorial inequalities (which is a great help for remote rural schools without psychologists). *"Boundaries no longer exist. A parent can consult from home" (No. 2).*

However, the transition to remote counseling has exposed another form of inequality — the inaccessibility of help for those who lack technical equipment. *"Not everyone has the opportunity to consult remotely. Either it costs money, or they don't have Zoom, etc." (No. 4).*

### Acceptability

The first barrier, noted by experts, was associated with stigmatization, misunderstanding the details of a psychologist's work, the differences between their work and that work of a psychiatrist. *"You ask a teenager — have you visited a school psychologist? Oh, no! If anybody sees, then it will be a nightmare ... only weird people visit psychologists"* (No. 10).

The second barrier was associated with the fear of confidentiality breach. *"Parents are not always ready to discuss the child's problems in the educational organization where they are studying... Parents are afraid of disclosing information"* (No. 3).

Experts noted that PPMS centers may be associated with greater anonymity among service recipients: *"they come to us more often, so that no one in the educational institution knows about it, because anonymity here is higher"* (No. 1).

Another barrier was the fear of negative consequences from help seeking, the transmission of information to other government agencies or possible discrimination toward the child outside the school. *"They are afraid of state institutions, they are afraid that the information will get somewhere"* (No. 8). *"Parents are afraid to ruin their child's life because they [state institutions] will lock the kids up and that would be it"* (No. 3). *"They are afraid that this will go through some kind of screening, that it will be visible somewhere later"* (No. 9).

The preference for alternative types of help was also seen as a barrier. *"Although it was possible to refer to a psychologist, they went to church, to fortune-tellers, astrologers. Some crazy money was paid to such private organizations"* (No. 9).

The pandemic has fuelled inadequate perceptions among young people about the need for help thanks to low levels of mental health literacy (low levels of recognition of the symptoms of mental distress in oneself and others). *"Separation problems have been ex-*

*acerbated [for teenagers during the pandemic] when they are at home and are placed under excessive control. We are already seeing cases of self harm come in"* (No. 3).

When the experts are identified as facilitators, we see destigmatization of psychological help, increasing confidence in the service specialist, and a rise in the relevant forms of online communication. The importance of popularizing practical psychology was noted, providing meetings with psychologists to show *"that it's not shameful, it's not scary and nothing terrible will happen to you here"* (No. 10). Effective strategies for developing confidence in psychologists proposed included increasing the involvement of psychologists in everyday school life: *"participation in class meetups and parent-teacher meetings, where they can show what they have to offer"* (No. 4); the inclusion of psychology classes in the curriculum for 8—11 grades: *"I already knew them like the back of my hand. Surely at least someone would remain after classes for a break, and I had to whisper with them one-one-one behind closed doors"* (No. 3); the use of forms of online communication that are effective for adolescents and parents, for example, *"psychological support clubs, where they simply offer advice, including via chat"* (No. 6).

The pandemic has pushed much of healthcare online, normalizing such a medium of provision and making it more accessible. Experts noted that teenagers *"live"* on sites developed by psychologists, *"look at our actual work, and then it's not so scary [to visit a psychologist]"* (No. 5).

The pandemic contributed to an increase in the possibility of anonymous online referrals for help: *"We made a page where the child could apply anonymously online"* (No. 8); *"some feel safer online"* (No. 4).

### Quality

Experts have noted the following barriers to visiting a psychologist related to the quality of the services provided:

— objectively low qualification levels among psychologists in the education system. *“The psychologist writes in the report — Vasya has the character of a rectangle, according to the zodiac — is a leo” (No. 8).*

— a psychologist is subjectively perceived to have low qualifications due to a confusion of social roles. *“The art teacher went to college and became a psychologist, but in the eyes of the students, (s)he is still just an art teacher” (No. 10).*

— low assessment of the effectiveness of a psychologist’s work when experiencing unpleasant emotions after interacting with him/her. *“It is not always possible for recipients of psychological help to assess its benefit adequacy. For example, the procedure may be unpleasant but beneficial” (No. 7).*

— low-quality infrastructure (conditions for working with a psychologist). *“His office in the basement, it is uncomfortable and stuffy”, therefore, according to the expert, it is necessary to “find or create the right environment to facilitate psychological help” (No. 2).*

The increase in the workload of remote psychologists during the pandemic has exposed the quality limitations of online work. *“Online consultations have shifted from therapeutic work to educational work” (No. 1).* *“The empathy that should be present face to face isn’t there” (No. 3).*

Among the facilitators, the experts noted that highly subjective evaluations of the effectiveness of the help received from a psychologist could sometimes count: *“wow, that help was so effective” (No. 4).*

## Discussion

In observing the growing number of referrals, the experts tend to underestimate the size of the gap between the need among students and parents for psychological help and how much is provided and in what form. Studies in European countries have also pointed to an obvious discrepancy be-

tween the amount of services provided and the needs of their consumers [22], which becomes particularly evident during periods of social crises. Since experts do not distinguish between referrals initiated by adolescent themselves or by a third party, adolescent-initiated referrals may also be underestimated. Meanwhile it is extremely important to differentiate these forms of help seeking — if the parent or teacher acts as the initiator of the referral to the child’s psychologist, then such an experience does not contribute to the child’s readiness for repeated referral [12].

Experts see the fear of confidentiality violation as one of the key barriers to seeking psychological help, but the sources of these fears may vary. Some believe that faith in confidentiality within an educational organization is made possible by building trust in a familiar specialist, and point out that students and their parents have more concerns about external organizations (PPMS centers) that may transmit personal information to other institutions. In contrast, other experts report fears about disclosure within the organization where an adolescent studies, and perceptions of greater anonymity outside of it. Assessing the extent to which such fears are widespread and legitimate, and what format of help beneficiaries associate with greater confidentiality, is an important task for future empirical research.

The transformational processes triggered by the COVID-19 pandemic have highlighted additional barriers and facilitators. The digitalization of psychological support was assessed by the experts ambiguously. Remote help increases access by expanding the geography of coverage, opens up new forms of assistance (using social networks and instant messengers), and increases the acceptability and quality of services provided. Other studies emphasized the psychologists’ growing arsenal of tools thanks to the rise of telepsychology [1]. But both the technical and qualitative

limitations of the online format of work can become barriers. The availability of remote psychological help for low-income families is decreasing. This raises the ethical issue of using remote forms of psychological support associated with a relatively new form of digital inequality [16]. At the same time, according to experts, this form of work may be inferior to the traditional one in terms of the quality of support provided.

The AAAQ assessment model (Availability, Accessibility, Acceptability, and Quality of service) has proved to be a heuristic for delineating the barriers to and facilitators of help seeking. This study revealed that all four of its components currently require attention. When improving psychological help services, it is necessary to take into account cultural factors of the acceptability of help seeking [10]. In our study, the following barriers were identified: the specifics of understanding mental health norms and pathology, the ability to recognize mental ill-health in oneself and others, and preferences for alternative, near-psychological types of support.

The main limitation of this study is that the views of the experts who provide mental health services may not coincide with the views of the potential beneficiaries. However, the opinions of such experts is extremely important, since it will be the driver for transformation of the psychological help system.

## Conclusion

The study made it possible to characterize how the barriers to and facilitators of

seeking psychological help in the education system are seen by the experts responsible for its provision in the regions of Russia. The analysis of the experts' presented the conclusion that the barriers and facilitators identified by them are consistent with all analytical categories of the AAAQ model. Today, factors related to the availability of psychological support services within the education system, the accessibility of these services for all participants of educational relations, as well as the acceptability and quality of the services provided are vital. The greatest number of barriers identified by the experts is associated with the acceptability (stigmatization, violation of confidentiality, fears, etc.) and the quality of the services provided (low level of specialists' qualifications, poor views of the effectiveness of such support).

Factors facilitating the seeking of psychological help were mainly related to the availability of the services. Measures aimed at de-stigmatization, building a trusting relationship with a particular psychologist, and increasing the anonymity of referrals would make psychological services more inviting. The increase in psychological problems associated with the COVID-19 pandemic and the prevalence of remote forms of communication had been powerful factor in the growing availability and acceptability of psychological services for students. The data obtained can be used to develop measures to improve psychological services in the education system.

## References

1. Gartfelder D.V. Distantionnaya psikhologicheskaya pomoshch': obzor sovremennykh vozmozhnostey i ogranicheniy [Remote psychological assistance: an overview of modern opportunities and limitations]. *Vestnik psikhiiatrii i psikhologii Chuvashii [Bulletin of psychiatry and psychology of Chuvashia]*, 2016. Vol. 12, no. 2, pp. 77—96. (In Russ.).
2. Kazantseva T.V., Antonova N.A., Yeritsyan K.Yu. Obrashcheniye za professional'noy pomoshch'yu v sfere psikhicheskogo zdorov'ya: kontseptualizatsiya ponyatiya i analiz prediktorov [Help-seeking in mental health problems: conceptualization and analysis of predictors]. *Peterburgskiy psikhologicheskii zhurnal [Petersburg Psychological Journal]*, 2019, no. 28, pp. 88—117. (In Russ.).
3. Kontseptsiya razvitiya psikhologicheskoy sluzhby v sisteme obrazovaniya v Rossiyskoy Federatsii na period do 2025 goda [Concept for the development of psychological services in the education system in the Russian Federation for the period up to 2025]. *Vestnik obrazovaniya [Education Herald]*, 2018, no. 2, pp. 13—27. (In Russ.).

4. Ob utverzhdenii professional'nogo standarta "Pedagog-psikholog (psikholog v sfere obrazovaniya)": prikaz Ministerstva truda i sotsial'noy zashchity [On the approval of the professional standard "Educator-psychologist (psychologist in the field of education)": an order of the Ministry of Labor and Social Protection of the Russian Federation of July 24, 2015. Article No. 514n]. Available at: <https://sudact.ru/law/prikaz-mintrudarossii-ot-24072015-n-514n/> / prikaz / (Accessed 10.10.2021). (In Russ.).
5. O psikhiatricheskoy pomoshchi i garantiyakh prav grazhdan pri yeye okazanii: Zakon RF [On psychiatric care and guarantees of the rights of citizens in its provision: Russian Federation Law, July 2, 1992, No. 3185-I]. *Vedomosti S'yezda narodnykh deputatov Rossiyskoy Federatsii i Verkhovnogo Soveta Rossiyskoy Federatsii [Bulletin of the Congress of People's Deputies of the Russian Federation and the Supreme Soviet of the Russian Federation]*, 1992, no. 33, art. 1913. (In Russ.).
6. Savina E.A., Esterle A.E., Savenkova I.A., Ovsyanikova E.A., Khudaeva M.Yu. Issledovaniye psikhologicheskikh problem ipotrebnosti v konsul'tatsii pedagogov-psikhologa u shkol'nikov 7-kh, 9-kh i 11-kh klassov [Research of psychological problems and the need for consultation with a teacher-psychologist among schoolchildren of the 7th, 9th and 11th grades]. *Psikhologicheskaya nauka i obrazovaniye = Psychological Science and Education*, 2019. Vol. 24, no. 4, pp. 92—104. DOI:10.17759/pse.2019240408 Available at: [https://psyjournals.ru/psyedu/2019/n4/Savina\\_Esterle\\_et\\_al.shtml](https://psyjournals.ru/psyedu/2019/n4/Savina_Esterle_et_al.shtml) (Accessed 10.12.2021). (In Russ.).
7. Tsvetkova L., Antonova N., Yeritsyan K. Otsenka effektivnosti deyatel'nosti psikhologicheskoy sluzhby v obrazovatel'noy organizatsii [Evaluation of the effectiveness of the psychological service in an educational organization. Tutorial]. Publ. Herzen Pedagogical University, 2021. 40 p. (In Russ.).
8. Alonso J., Liu Z., Evans Lacko S. et al. Treatment gap for anxiety disorders is global: Results of the World Mental Health Surveys in 21 countries. *Depression and anxiety*, 2018. Vol. 35, no. 3, pp. 195—208. DOI:10.1002/da.22711
9. Braun V., Clarke V. Using thematic analysis in psychology. *Qualitative research in psychology*, 2006. Vol. 3, no. 2, pp. 77—101. DOI:10.1191/1478088706qp063oa
10. Brown E., Topping A., Cheston R. What are the barriers to accessing psychological therapy in Qatar: A concept mapping study. *Counselling and Psychotherapy Research*, 2019. Vol. 19, no. 4, pp. 441—454. DOI:10.1002/capr.12252
11. Doll B. et al. School-based mental health services: Definitions and models of effective practice. *Journal of applied school psychology*, 2017. Vol. 33, no. 3, pp. 179—194. DOI:10.1080/15377903.2017.1317143
12. Eritsyayn K., Antonova N., Kazantseva T., Usacheva N. Association between descriptive and injunctive norms and students' intention toward seeking mental health service. *Counselling and Psychotherapy Research*, 2021. Vol. 21, no. 4, pp. 827—836. DOI:10.1002/capr.12461
13. Hernández-Torrano D., Faucher C., Tynybayeva M. The Role of the School Psychologist in the Promotion of Children's Well-Being: Evidence from Post-Soviet Kazakhstan. *Child Indicators Research*, 2021. Vol. 14, no. 3, pp. 1175—1197. DOI:10.1007/s12187-020-09793-x
14. Human rights and health. World Health Organization, 2017. Available at: <https://www.who.int/ru/news-room/fact-sheets/detail/human-rights-and-health> (Accessed 01.12.2020).
15. Kessler R.C., Angermeyer M., Anthony J.C. et al. Lifetime prevalence and age-of-onset distributions of mental disorders in the World Health Organization's World Mental Health Survey Initiative. *World Psychiatry*, 2007. Vol. 6, no. 3, pp. 168—76.
16. Khilnani A., Schulz J., Robinson L. The COVID-19 pandemic: new concerns and connections between eHealth and digital inequalities. *Journal of Information, Communication and Ethics in Society*, 2020. Vol. 18, no. 3, pp. 393—403. DOI:10.1108/JICES-04-2020-0052
17. Kohn R., Ali A.A., Puac-Polanco V. et al. Mental health in the Americas: an overview of the treatment gap. *Revista Panamericana de Salud Publica*, 2018. Vol. 42, no. 1, pp. e165. DOI:10.26633/RPSP.2018.165
18. Kranzler J.H., Floyd R.G., Bray M.A., Demaray M.K. Past, present, and future of research in school psychology: The biopsychosocial ecological model as an overarching framework. *School Psychology*, 2020. Vol. 35, no. 6, pp. 419—427. DOI:10.1037/spq0000401
19. Rones M., Hoagwood K. School-based mental health services: A research review. *Clinical child and family psychology review*, 2000. Vol. 3, no. 4, pp. 223—241.
20. Schierenbeck I., Johansson P., Andersson L., van Rooyen D. Barriers to accessing and receiving mental health care in Eastern Cape, South Africa. *Health and human rights*, 2013. Vol. 15, no. 2, pp. 110—119.
21. Sharpe H., Ford T., Lereya S.T. et al. Survey of schools' work with child and adolescent mental health across England: a system in need of support. *Child and Adolescent Mental Health*, 2016. Vol. 21, no. 3, pp. 148—153.
22. Signorini G., Singh S.P. et al. Architecture and functioning of child and adolescent mental health services: A 28-country survey in Europe. *Lancet Psychiatry*, 2017. Vol. 4, no. 9, pp. 715—724. DOI:10.1016/S2215-0366(17)30127-X

## Литература

1. Гартфельдер Д.В. Дистанционная психологическая помощь: обзор современных возможностей и ограничений // Вестник психиатрии и психологии Чувашии. 2016. Том 12. № 2. С. 77—96.
2. Казанцева Т.В., Антонова Н.А., Ерицяна К.Ю. Обращение за профессиональной помощью в сфере психического здоровья: концептуализация понятия и анализ предикторов // Петербургский психологический журнал. 2019. № 28. С. 88—117.
3. Концепция развития психологической службы в системе образования в Российской Федерации на период до 2025 года (утв. Министерством образования и науки Российской Федерации 19 декабря 2017 г.) // Вестник образования. 2018. № 2. С. 13—27.
4. Об утверждении профессионального стандарта «Педагог-психолог (психолог в сфере образования)»: приказ Министерства труда и социальной защиты Российской Федерации от 24 июля 2015 г. № 514н [Электронный ресурс]. URL: <https://sudact.ru/law/prikaz-mintruda-rossii-ot-24072015-n-514n/prikaz/> (дата обращения: 10.10.2021).
5. О психиатрической помощи и гарантиях прав граждан при ее оказании: Закон Российской Федерации от 2 июля 1992 г. № 3185-1 // Ведомости Съезда народных депутатов Российской Федерации и Верховного Совета Российской Федерации от 20 августа 1992 г. № 33. Ст. 1913.
6. Савина Е.А., Эстерле А.Е., Савенкова И.А., Овсяникова Е.А., Худаева М.Ю. Исследование психологических проблем и потребности в консультации педагога-психолога у школьников 7-х, 9-х и 11-х классов // Психологическая наука и образование. 2019. Том 24. № 4. С. 92—104. DOI:10.17759/pse.2019240408
7. Цветкова Л.А., Антонова Н.А., Ерицяна К.Ю. Оценка эффективности деятельности психологической службы в образовательной организации: учебное пособие. СПб.: Изд-во РГПУ им. А.И. Герцена, 2021. 40 с.
8. Alonso J., Liu Z., Evans Lacko S., ... Bruffaerts R. Treatment gap for anxiety disorders is global: Results of the World Mental Health Surveys in 21 countries // Depression and anxiety. 2018. Vol. 35. № 3. P. 195—208. DOI:10.1002/da.22711
9. Braun V., Clarke V. Using thematic analysis in psychology // Qualitative research in psychology. 2006. Vol. 3. № 2. P. 77—101. DOI:10.1191/1478088706qp063oa
10. Brown E., Topping A., Cheston R. What are the barriers to accessing psychological therapy in Qatar: A concept mapping study // Counselling and Psychotherapy Research. 2019. Vol. 19. № 4. P. 441—454. DOI:10.1002/capr.12252
11. Doll B. et al. School-based mental health services: Definitions and models of effective practice // Journal of applied school psychology. 2017. Vol. 33. № 3. P. 179—194. DOI:10.1080/15377903.2017.1317143
12. Eritsyana K., Antonova N., Kazantseva T., Usacheva N. Association between descriptive and injunctive norms and students' intention toward seeking mental health service // Counselling and Psychotherapy Research. 2021. Vol. 21. № 3. P. 827—836. DOI:10.1002/capr.12461
13. Hernández-Torrano D., Faucher C., Tynybayeva M. The Role of the School Psychologist in the Promotion of Children's Well-Being: Evidence from Post-Soviet Kazakhstan // Child Indicators Research. 2021. Vol. 14. № 3. P. 1175—1197. DOI:10.1007/s12187-020-09793-x
14. Human rights and health. World Health Organization. 2017 [Electronic resource]. URL: <https://www.who.int/ru/news-room/fact-sheets/detail/human-rights-and-health> (Accessed 01.12.2020).
15. Kessler R.C., Angermeyer M., Anthony J.C. et al. Lifetime prevalence and age-of-onset distributions of mental disorders in the World Health Organization's World Mental Health Survey Initiative // World Psychiatry. 2007. Vol. 6. № 3. P. 168—76. DOI:PMC2174588
16. Khilnani A., Schulz J., Robinson L. The COVID-19 pandemic: new concerns and connections between eHealth and digital inequalities // Journal of Information, Communication and Ethics in Society. 2020. Vol. 18. № 3. P. 393—403. DOI:10.1108/JICES-04-2020-0052
17. Kohn R., Ali A.A., Puac-Polanco V. et al. Mental health in the Americas: an overview of the treatment gap // Revista Panamericana de Salud Pública. 2018. Vol. 42. № 1. P. e165. DOI:10.26633/RPSP.2018.165
18. Kranzler J.H., Floyd R.G., Bray M.A., Demaray M.K. Past, present, and future of research in school psychology: The biopsychosocial ecological model as an overarching framework // School Psychology. 2020. Vol. 35. № 6. P. 419—427. DOI:10.1037/spq0000401
19. Rones H., Hoagwood K. School-based mental health services: A research review // Clinical child and family psychology review. 2000. Vol. 3. № 4. P. 223—241.
20. Schierenbeck I., Johansson P., Andersson L., van Rooyen D. Barriers to accessing and receiving mental health care in Eastern Cape, South Africa // Health and human rights. 2013. Vol. 15. № 2. P. 110—119.
21. Sharpe H., Ford T., Lereya S.T. et al. Survey of schools' work with child and adolescent mental health across England: a system in need of support // Child and Adolescent Mental Health. 2016. Vol. 21. № 3. P. 148—153. DOI:10.1111/camh.12166
22. Signorini G., Singh S.P. et al. Architecture and functioning of child and adolescent mental health services: A 28-country survey in Europe // Lancet Psychiatry. 2017. Vol. 4. № 9. P. 715—724. DOI:10.1016/S2215-0366(17)30127-X

**Information about the authors**

*Natalia A. Antonova*, PhD in Psychology, Senior Researcher at Psychology Institute, Herzen State Pedagogical University of Russia, Saint Petersburg, Russia, ORCID: <https://orcid.org/0000-0002-5471-8902>, e-mail: [antonova.natalia11@gmail.com](mailto:antonova.natalia11@gmail.com)

*Ksenia Yu. Eritsyun*, PhD in Psychology, Researcher at Psychology Institute, Herzen State Pedagogical University of Russia, Saint Petersburg, Russia, ORCID: <https://orcid.org/0000-0002-4400-0593>, e-mail: [ksenia.eritsyan@gmail.com](mailto:ksenia.eritsyan@gmail.com)

*Tatiana V. Kazantseva*, PhD in Psychology, Associate Professor, Chair of Social Psychology, Saint Petersburg State University, Saint Petersburg, Russia, ORCID: <https://orcid.org/0000-0002-2540-2976>, e-mail: [tatakaz@mail.ru](mailto:tatakaz@mail.ru)

*Roman G. Dubrovsky*, PhD in Sociology, analyst at the Center for the Protection of the Rights and Interests of Children, Moscow, Russia, ORCID: <https://orcid.org/0000-0001-9876-9798>, e-mail: [Roman.Dubrovsky@gmail.com](mailto:Roman.Dubrovsky@gmail.com)

**Информация об авторах**

*Антонова Наталья Александровна*, кандидат психологических наук, старший научный сотрудник Института психологии, ФГБОУ ВО «Российский государственный педагогический университет им. А.И. Герцена» (ФГБОУ ВО РГПУ им. А.И. Герцена), г. Санкт-Петербург, Российская Федерация, ORCID: <https://orcid.org/0000-0002-5471-8902>, e-mail: [antonova.natalia11@gmail.com](mailto:antonova.natalia11@gmail.com)

*Ерицян Ксения Юрьевна*, кандидат психологических наук, научный сотрудник Института психологии, ФГБОУ ВО «Российский государственный педагогический университет им. А.И. Герцена» (ФГБОУ ВО РГПУ им. А.И. Герцена), г. Санкт-Петербург, Российская Федерация, ORCID: <https://orcid.org/0000-0002-4400-0593>, e-mail: [ksenia.eritsyan@gmail.com](mailto:ksenia.eritsyan@gmail.com)

*Казанцева Татьяна Валерьевна*, кандидат психологических наук, доцент кафедры социальной психологии, ФГБОУ ВО «Санкт-Петербургский государственный университет» (ФГБОУ ВО СПбГУ), г. Санкт-Петербург, Российская Федерация, ORCID: <https://orcid.org/0000-0002-2540-2976>, e-mail: [tatakaz@mail.ru](mailto:tatakaz@mail.ru)

*Дубровский Роман Геннадьевич*, кандидат социологических наук, аналитик, ФГБУ «Центр защиты прав и интересов детей», г. Москва, Российская Федерация, ORCID: <https://orcid.org/0000-0001-9876-9798>, e-mail: [Roman.Dubrovsky@gmail.com](mailto:Roman.Dubrovsky@gmail.com)

Получена 11.01.2022

Received 11.01.2022

Принята в печать 30.06.2022

Accepted 30.06.2022



# The Current State of Emergency Psychological Assistance in the Education System

**Olga A. Ulyanina**

Moscow State University of Psychology & Education, Moscow, Russia  
ORCID: <https://orcid.org/0000-0001-9300-4825>, e-mail: [ulyaninaoa@mgppu.ru](mailto:ulyaninaoa@mgppu.ru)

**Larisa A. Gayazova**

Moscow State University of Psychology & Education, Moscow, Russia  
ORCID: <https://orcid.org/0000-0003-0542-6687>, e-mail: [gayazovala@mgppu.ru](mailto:gayazovala@mgppu.ru)

**Anna V. Ermolaeva**

Moscow State University of Psychology & Education, Moscow, Russia  
ORCID: <https://orcid.org/0000-0001-5623-6248>, e-mail: [ermolaevaav@mgppu.ru](mailto:ermolaevaav@mgppu.ru)

**Kseniya A. Fayzullina**

Moscow State University of Psychology & Education, Moscow, Russia  
ORCID: <https://orcid.org/0000-0002-2985-9332>, e-mail: [fajzullinaka@mgppu.ru](mailto:fajzullinaka@mgppu.ru)

Scientific interest in providing emergency psychological assistance in crisis situations is based on a practical request, since a crisis incident poses a threat to life and health. The paper presents an analysis of the provision of emergency psychological assistance in the education system. The sample consisted of 3 groups of respondents (12048 individuals) from 75 subjects of the Russian Federation. Specially designed questionnaires were used to obtain information on certain indicators from different sources. The study assessed the state of the infrastructure, collected information on staffing, identified conditions that have a negative impact on the quality and availability of psychological first aid. According to the results of the study, quality criteria were identified and the directions and measures necessary for the provision of emergency psychological assistance were determined. It is concluded that the effectiveness of psychological assistance in crisis situations depends on the availability of qualified specialists and educational work with teachers and parents to develop skills for early detection of a crisis situation.

**Keywords:** emergency psychological assistance, crisis situation, education system, crisis state, monitoring study, school, mental health.

---

**For citation:** Ulyanina O.A., Gayazova L.A., Ermolaeva A.V., Fayzullina K.A. The Current State of Emergency Psychological Assistance in the Education System. *Psikhologicheskaya nauka i obrazovanie = Psychological Science and Education*, 2022. Vol. 27, no. 4, pp. 88—99. DOI: <https://doi.org/10.17759/pse.2022270409> (In Russ.).

## **Экстренная психологическая помощь в системе образования: современное состояние**

**Ульянина О.А.**

ФГБОУ ВО «Московский государственный психолого-педагогический университет»  
(ФГБОУ ВО МГППУ), г. Москва, Российская Федерация  
ORCID: <https://orcid.org/0000-0001-9300-4825>, e-mail: [ulyaninaoa@mgppu.ru](mailto:ulyaninaoa@mgppu.ru)

**Гаязова Л.А.**

ФГБОУ ВО «Московский государственный психолого-педагогический университет»  
(ФГБОУ ВО МГППУ), г. Москва, Российская Федерация  
ORCID: <https://orcid.org/0000-0003-0542-6687>, e-mail: [gayazovala@mgppu.ru](mailto:gayazovala@mgppu.ru)

**Ермолаева А.В.**

ФГБОУ ВО «Московский государственный психолого-педагогический университет»  
(ФГБОУ ВО МГППУ), г. Москва, Российская Федерация  
ORCID: <https://orcid.org/0000-0001-5623-6248>, e-mail: [ermolaevaav@mgppu.ru](mailto:ermolaevaav@mgppu.ru)

**Файзуллина К.А.**

ФГБОУ ВО «Московский государственный психолого-педагогический университет»  
(ФГБОУ ВО МГППУ), г. Москва, Российская Федерация  
ORCID: <https://orcid.org/0000-0002-2985-9332>, e-mail: [fajzullinaka@mgppu.ru](mailto:fajzullinaka@mgppu.ru)

Представлен анализ оказания экстренной психологической помощи в системе образования. Авторы отмечают, что научный интерес к оказанию экстренной психологической помощи в кризисных ситуациях обусловлен практическим запросом, так как кризисное происшествие несет угрозу для жизни и здоровья. Выборку составили 3 группы респондентов (12048 человек) из 75 субъектов Российской Федерации. В качестве инструментария использовались специально разработанные анкеты, позволяющие получить сведения по определенным индикаторам из разных источников. В ходе исследования проведена оценка состояния инфраструктуры, собраны сведения о кадровом обеспечении, выявлены условия, оказывающие негативное влияние на качество и доступность экстренной и кризисной психологической помощи. По результатам исследования были выделены критерии качества и определены направления и мероприятия, необходимые для оказания экстренной психологической помощи. Сделаны выводы, что эффективность работы по оказанию психологической помощи в кризисных ситуациях зависит от наличия квалифицированных специалистов и просветительской работы с педагогами и родителями по развитию навыков раннего выявления кризисной ситуации.

**Ключевые слова:** экстренная психологическая помощь, кризисная ситуация, система образования, кризисное состояние, мониторинговое исследование, школа, психологическое здоровье.

---

**Для цитаты:** Ульянина О.А., Гаязова Л.А., Ермолаева А.В., Файзуллина К.А. Экстренная психологическая помощь в системе образования: современное состояние // Психологическая наука и образование. 2022. Том 27. № 4. С. 88—99. DOI: <https://doi.org/10.17759/pse.2022270409>

## Introduction

The research community has focused on the psychological consequences of crisis situations. A crisis situation in an educational organization is an incident that causes harm to the life and health of those involved in educational relationships, the environment, the organization, the educational process, the image of the school, etc. [4; 9; 15].

Crisis situations in which the life and health of significant numbers others is threatened, media coverage of tragic events is susceptible, others are emotionally destabilized, children are forced to change their living conditions, significant social contacts are severed, etc. are a particular danger to the psychological state of those involved. [3; 5; 10].

An analysis of foreign studies has made it possible to identify common symptoms in children that manifest themselves in all aspects of personality and persist long after the crisis event. The symptoms in the emotional sphere are pronounced anxiety, borderline panic, and a state of fear. The symptoms in the cognitive sphere are a decrease in the level of cognitive processes, fixation on the experiences and the events that led to the crisis condition, and the inability to focus on positive events. The symptoms in the behavioral sphere are avoidance of any crisis situation involving chaotic movement, agitation toward impulsive aggression with the necessity to discharge it externally to lethargy and stupor. The symptoms in the somatic sphere are chronic painful sensations in the body, sleep disturbances, decreased appetite, a somatic vegetative state, and conversion reactions. The symptoms in the mental sphere are psychosensory disorders, feeling of an altered self and environment, depersonalization, and derealization. [13; 14; 15].

The system of emergency psychological assistance (hereinafter EPA) in the educational environment is a system of measures to provide psychological assistance, depending on the type of crisis event in which the participants of educational relations have found

themselves, whether in a situation of explicit or implicit threat to their life and health [2].

## Research program

In order to study the current state of emergency psychological assistance in the education system of the Russian Federation, a monitoring study was conducted in January 2022 by the Moscow State University of Psychology and Education.

Monitoring tasks:

1. Assessment of the infrastructure for providing emergency and crisis psychological assistance to students and their parents (legal representatives).

2. Gathering information on staffing for emergency and crisis psychological assistance in the education system.

3. Identification of conditions that negatively affect the quality and availability of emergency and crisis psychological assistance for students and their parents (legal representatives).

4. Identification of areas in the education system that require the development of psychological services with regard to the provision of emergency and crisis psychological assistance to students and their parents (legal representatives).

The information-gathering technology used for the monitoring included a survey of three groups of respondents:

- Executive authorities of administrative divisions of the Russian Federation (hereinafter referred to as EAs), responsible for education and supervising the psychological service provided in education (62 subjects of the Russian Federation);

- heads of centers of psychological, pedagogical, medical and social assistance subordinate to the EAs, engaged public administration in the field of education (426 representatives of regional and municipal centers providing psychological, pedagogical, medical and social assistance in 70 administrative divisions of the Russian Federation);

— teacher-psychologists and psychologists working in the centers providing psychological and pedagogical, medical and social assistance and educational organizations subordinate to the EAs, carrying out public administration in the field of education (11,560 specialists from state and municipal educational organizations and centers providing psychological and pedagogical, medical and social assistance in 75 administrative divisions of the Russian Federation).

Specific questionnaires were developed for each group of respondents.

### Results

In most of the regions monitored, permanent anti-crisis units have been set up to provide EPA to participants in educational relations in emergency and crisis situations (fig. 1).

There are permanent anti-crisis units in all regions of the Urals Federal District.

There are no such facilities in most of the administrative divisions of the Far Eastern and North-Western districts. This was confirmed by representatives of 6 regions out of 8 in the Far Eastern Federal District.

In regions where there are no permanent anti-crisis units, their functions are performed by:

— the crisis center at a psychiatric hospital (Tula region);

— units of the Ministry of Emergency Situations of Russia (Tomsk, Murmansk regions, Kamchatka Krai);

— units providing remote psychological assistance (children's trust line) (Vladimir, Kirov regions);

— PPMS-centers (center for psychological, pedagogical, medical and social assistance) (Pskov, Orel, Kaluga, Sakhalin Regions, Republic of Buryatia, Primorsky Krai, Nenets Autonomous Okrug);

— centers of practical psychology and psychological and pedagogical rehabilitation (Moscow, Novosibirsk regions, Kabardino-Balkarian Republic);

— basic psychological offices (Chukotka Autonomous Okrug).

The total number of anti-crisis specialists varies from 3 to 118 people (Fig. 2). The number exceeds 100 people (116 and 118 specialists, respectively) in only two regions of the Volga Federal District (Samara Region and the Udmurt Republic). Anti-crisis units are represented by several organizations in these regions.

The structure of anti-crisis units for the provision of EPA to students can be: one organization, a unit within one organization, or several organizations.

According to the monitoring data, the most common option is for an anti-crisis unit

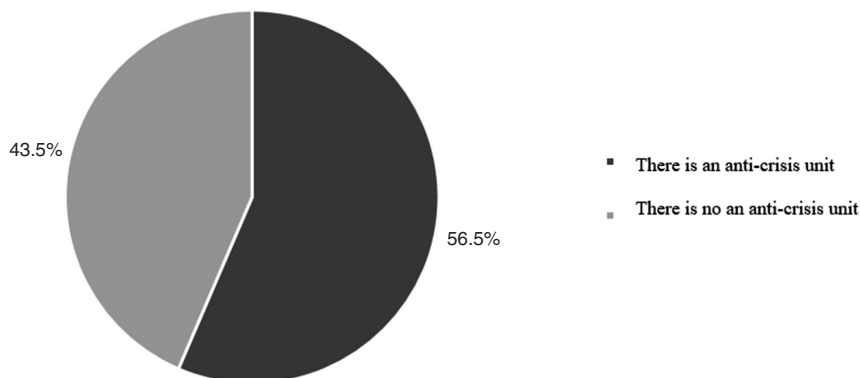


Fig. 1. Availability of permanent anti-crisis units in subjects of the Russian Federation

to be represented by a structural unit within one organization (fig. 3.)

The respondents were asked to list the procedure for actions at the level of the EA, which carries out public administration in the field of education, to provide EPA to participants of educational relations in crisis and emergency situations.

According to the monitoring data, a well-developed algorithm of actions to provide EPA, including organizational, coordination, methodological and resource-allocation functions, exists in the majority of adminis-

trative divisions of the Russian Federation (fig. 4.). Among the subjects with permanent anti-crisis units, the share of those with a fully developed algorithm for the provision of EPA is higher.

Every fifth administrative division recorded between 10 and 50 emergencies/crisis situations in which EPA was provided at the level of the administrative division of the Russian Federation (fig. 5). Although the number of regions with a high risk of such situations is low overall (6 regions), the high frequency of this indicator is alarming.

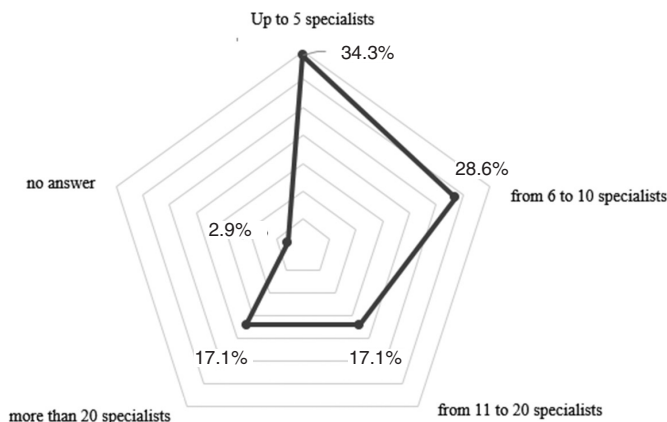


Fig. 2. Distribution of anti-crisis units by the number of full-time specialists

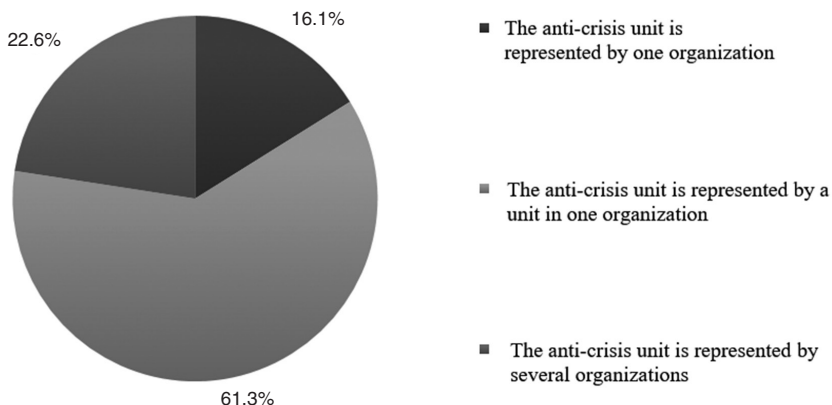


Fig. 3. Distribution of anti-crisis units by organizational structure

Regions with no crisis events in the last 5 years are more likely to have no permanent anti-crisis units for EPA than regions with more than 10 such events (fig. 6).

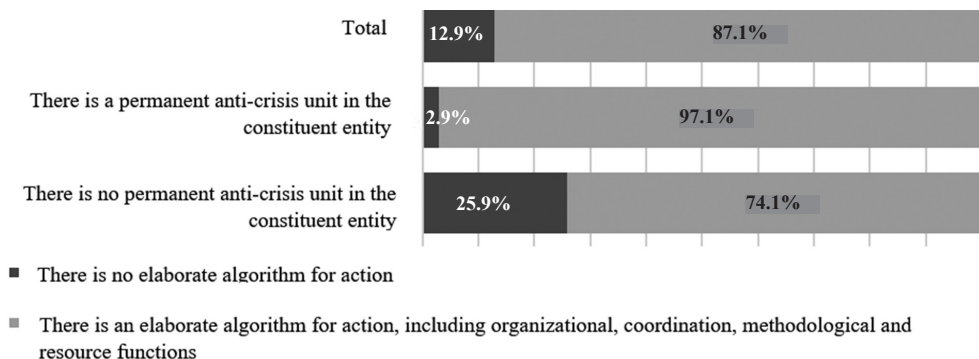
In emergencies/crisis situations, staff from PPMs are involved in the provision of EPA.

It was asked to assess whether the professionals at the PPMs provided assistance in each of the 5 types of events in 2021.

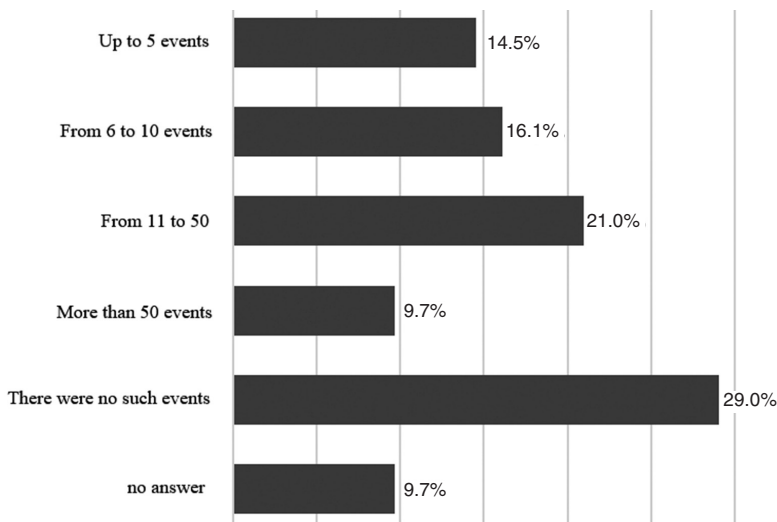
Two armed attacks were recorded in educational institutions, and EPA for the stu-

dents, their parents (legal representatives) and teaching staff was provided by specialists from the PPMs-centers of Moscovsky district of St. Petersburg and the Rostok Center for Psychological and Pedagogical Rehabilitation and Correction (Kazan).

Suicide/suicide attempts by students. EPA was provided in this situation at 138 organizations (32% of the total number of PPMs). As a rule, these were single cases (11%), or 2—3 cases (9%) during 2021.



*Fig. 4.* Bar charts showing the presence in the administrative divisions of the Russian Federation of a well-developed algorithm for providing emergency psychological assistance



*Fig. 5.* Number of events in the last 5 years that required psychological emergency assistance

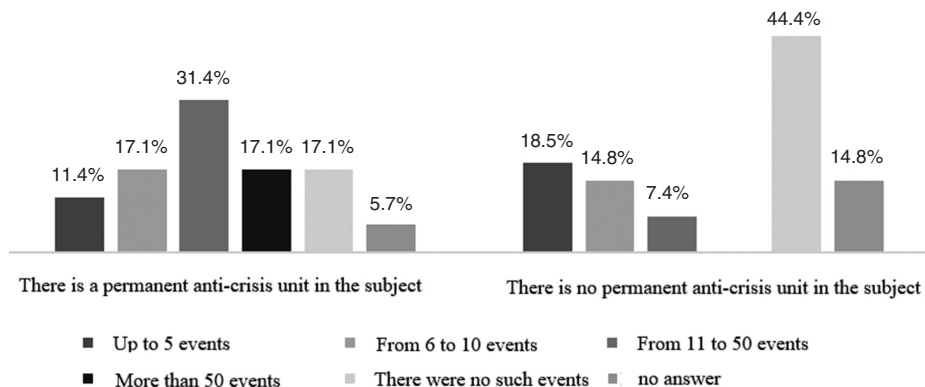


Fig. 6. Distribution of regions by availability of permanent anti-crisis units according to the number of events in the last 5 years that require the provision of EPA

In situations of violence against students, EPA was provided at 72 organizations (17% of the total number of PPMS-centers).

In conflict situations among students, parents (legal representatives), or pedagogical staff, EPA was provided at 200 organizations (47% of the total number of PPMSs). According to respondents' estimates, in 2021, specialists had to work with 2—3 such cases (15%), or some, less often, with 4—5 cases (10%).

At 17 organizations EPA was provided to accompany mourning events (8% of the total number of PPMS-centers). As a rule, these were single cases in 2021 (1 case — 4%, 2—3 cases — 3%).

When providing EPA, various difficulties may arise at the regional level, at the level of the organization, or that of a specific specialist (fig. 7).

All respondents cited a lack of specialist staff as a major challenge in the provision of EPA.

For the heads of EAs responsible for state administration of education, the second most important difficulty is related to the territorial remoteness of educational organizations. Heads of PPMC-centers and psychologists note an insufficient level of material and technical support for psychological services (37% and 36% respectively).

Heads and specialists of PPMS-centers are concerned about low salaries (34% and 35%); for the majority of EAs, this is not a factor significantly complicating the provision of EPA for the participants of educational relations (19%).

EAs indicated a lack of legal regulation or an algorithm for EPA provision in the education system — 40%. The figure is 30% among heads of organizations, and for specialists it is 18%. Lack of practice and regulation in interdepartmental interaction hinders the organization of EPA primarily for the heads of organizations (PPMS-centers) — 36%, less frequently for specialists (29%) and EAs (27%).

The monitoring participants assessed to what extent the proposed criteria reflect the quality of emergency psychological assistance on a 10-point scale.

All participants gave a high score to the criterion of “increasing the level of accessibility of psychological assistance for participants in the educational process who find themselves in crisis and emergency situations”. The EAs assessed this at 8.85 points. (fig. 8).

The heads of organizations providing psychological assistance to the population assessed it at a level of 8.38 points.

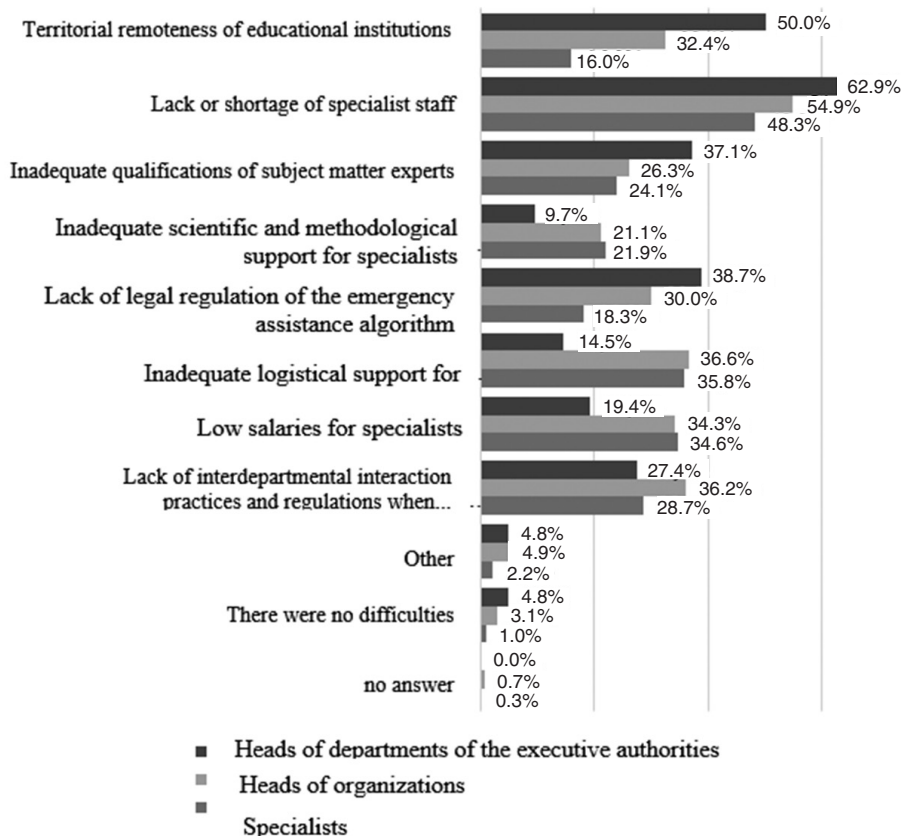


Fig. 7. Difficulties encountered when providing EPA in crisis and emergency situations

Specialists providing psychological assistance to children and their parents (legal representatives) assessed this criterion as high as possible (7.59 points). The highest scores were given by specialists from the North-Western (7.8 points), Ural and Central (7.7 points each) federal districts. The lowest score for this criterion was given in the North Caucasus Federal District, which generally correlates with the scores from the EAs.

Second place was given to the criterion “raising awareness of participants in the educational process about the possibilities of seeking appropriate assistance in crisis and emergency situations”. Four regions gave

a high score to the criterion “raising public awareness about the services provided by psychological centers in crisis and emergency situations” (above 9.0 points): the Siberian, Far Eastern, Northwestern and Ural Federal Districts, while in the North Caucasus Federal District, the EAs assessed this criterion only at 7 points.

The criterion “reduction of the intensity of acute stress reactions in victims, optimization of their current mental state” was assessed ambiguously by the participants. Heads at all levels put this criterion in the third place, but experts placed it only in 5th place.



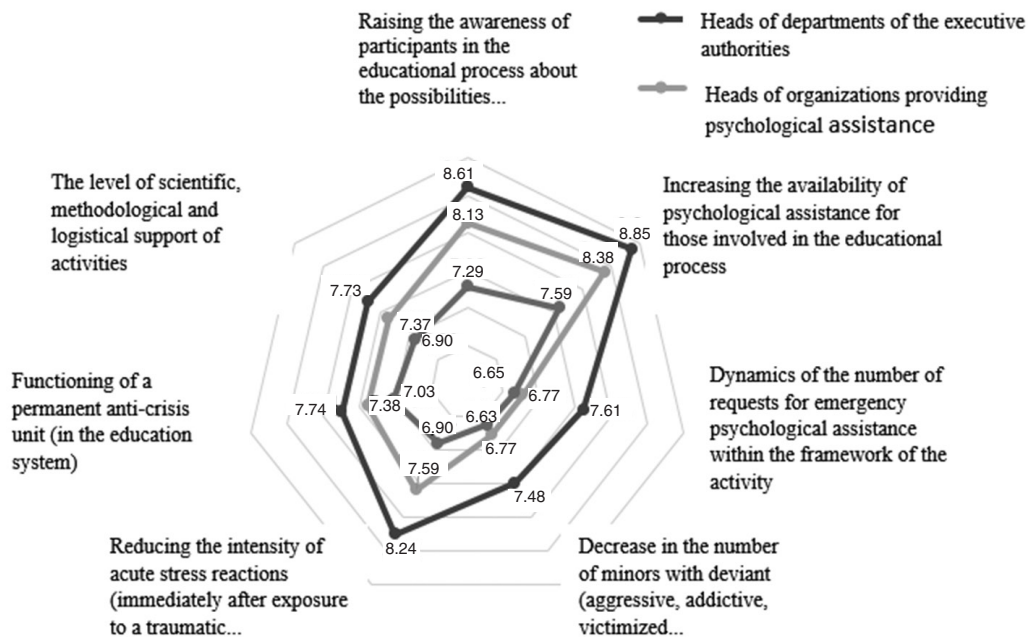


Fig. 8. Assessing the quality of emergency psychological assistance

The criterion “functioning of a permanent anti-crisis unit (in the education system) in each constituent entity of the Russian Federation” was ranked at 4th place by heads of all levels, while specialists ranked it in the 3rd place.

Not all subjects of the Russian Federation have permanent anti-crisis units within the education system. There are those who can speak with certainty about the impact of the existence of such units on the quality of EPA provision, and those who can only assume it would be so. The scores obtained for this criterion also show differences depending on region.

According to the results of a survey of the EAs, the assessment of the criterion “the level of scientific, methodological and logistical support for the activities of specialists of the anti-crisis unit” varies from 8.9 points in the Far Eastern Federal District to 5.6 points in the North Caucasus Federal District. Also,

a spread in assessments was noted in the survey of heads of organizations providing psychological assistance: from 8.7 points in the Far Eastern Federal District to 6.8 points in the Siberian Federal District.

Specialists providing psychological assistance ranked the criterion reflecting the quality of EPA provision 4th, with average scores ranging from 7.1 to 6.6 depending on the region, indicating a consistency of scores.

For EAs, the criterion “dynamics of referrals to free anonymous services” reflects the quality of the provision of EPA at an average level of 7.6.

In a survey of heads of organizations providing psychological assistance, scores for the criterion reflecting the quality of the provision of EPA ranged from 7.2 (Far Eastern Federal District) to 5.9 (Southern Federal District).

The criterion reflecting “a decrease in the number of minors with deviant and delin-

quent behavior in comparison with the previous period in the region” placed last.

### Findings

Four criteria define the quality of the provision of EPA:

— Increasing the availability of psychological assistance to education participants in crisis and emergency situations;

— increasing awareness among participants in the educational process of the possibilities for seeking appropriate assistance in crisis and emergency situations;

— reduction of the intensity of acute stress reactions (immediately after exposure to the psychologically traumatic event) in victims, normalization of their current psychological state;

### References

1. Artamonova E.G., Vasil'eva N.N., Glazunova E.A. Sozdanie i obespechenie sistemy ekstremnoi psikhologicheskoi pomoshchi v sostave psikhologicheskoi sluzhby v sisteme obrazovaniya Rossiiskoi Federatsii [Creation and provision of a system of emergency psychological assistance as part of the psychological service in the education system of the Russian Federation]. *Obrazovanie lichnosti* [Personal education], 2021, no. 3—4, pp. 95—137. (In Russ.).
2. Baeva I.A., Gayazova L.A., Kondakova I.V., Laktionova E.B. Psikhologicheskaya bezopasnost' lichnosti i tsennosti podrostkov i molodezhi [Psychological security of personality and values of adolescents and youth]. *Psikhologicheskaya nauka i obrazovanie = Psychological Science and Education*, 2020. Vol. 25, no. 6, pp. 5—18. (In Russ.).
3. Burlakova N.S. Psikhicheskoe razvitie detei, perezhivshikh massovye bedstviya: ot izucheniya posledstviy k proektirovaniyu razvitiya na osnove kul'turno-istoricheskogo analiza [Psychodynamics of the transmission of traumatic experience from generation to generation in the context of cultural and historical clinical psychology]. *Natsional'nyi psikhologicheskii zhurnal* [National Psychological Journal], 2018, no. 1(29), pp. 17—29 (In Russ.).
4. Bykhovets Yu.V., Padun M.A. Lichnostnaya trevozhnost' i regulyatsiya emotsii v kontekste izucheniya posttravmaticheskogo stressa [Personal anxiety and emotion regulation in the context of the study of post-traumatic stress]. *Klinicheskaya i spetsial'naya psikhologiya = Clinical and special psychology*, 2019, no. 1, pp. 78—89. (In Russ.).

— functioning of a permanent anti-crisis unit (in the education system) in each administrative division of the Russian Federation.

Experience and analysis of successful practices [8; 11] show that the effectiveness of EPA work largely depends on the availability of qualified specialists [1]. In the education system, there is a need not only to increase the number of trained specialists providing EPA, but also to conduct large-scale educational work with teachers of educational organizations to develop knowledge and skills in the early detection of crisis situations and the provision of first psychological assistance to those participants of the educational process in need [6; 7].

5. Golubeva O.Yu. Organizatsiya okazaniya ekstremnoi psikhologicheskoi pomoshchi postradavshim v chrezvychainykh situatsiyakh [Organization of emergency psychological assistance to victims in emergency situations]. *Materialy nauchno-prakticheskoi konferentsii «Mezhdistsiplinarnye podkhody k izucheniyu psikhicheskogo zdorov'ya cheloveka i obshchestva»* [Materials of the scientific-practical conference “Interdisciplinary approaches to the study of the mental health of a person and society”], 2019, pp. 36—43. (In Russ.).
6. Karapetyan L.V., Redina E.A. Motivatsionnaya gotovnost' psikhologov k okazaniyu ekstremnoi psikhologicheskoi pomoshchi postradavshim v chrezvychainykh situatsiyakh [Motivational readiness of psychologists to provide emergency psychological assistance to victims in emergency situations]. *Mediko-biologicheskie i sotsial'no-psikhologicheskie problemy bezopasnosti v chrezvychainykh situatsiyakh* [Medical-biological and socio-psychological problems of safety in emergency situations], 2021, no. 1, pp. 107—115. (In Russ.).
7. Ryadinskaya E.N. Osobennosti adaptatsionnykh resursov mirnykh zhitelei, prozhivayushchikh v zone vooruzhennogo konfliakta, v kontekste izucheniya transformatsii lichnosti [Features of adaptation resources of civilians living in the zone of armed conflict in the context of the study of personality transformations]. *Klinicheskaya i spetsial'naya psikhologiya = Clinical and special psychology*, 2017. Vol. 6, no. 4, pp. 105—124. (In Russ.).
8. Shoigu Yu.S., Timofeeva L.N., Tolubaeva N.V. Osobennosti okazaniya ekstremnoi psikhologicheskoi pomoshchi pri perezhivanii utraty v chrezvychainykh

situatsiyakh [Features of providing emergency psychological assistance in experiencing loss in emergency situations]. *Natsional'nyi psikhologicheskii zhurnal [National Psychological Journal]*, 2021, no. 1(41), pp. 115—126. (In Russ.).

9. Yul U., Uil'yams R.M. Strategiya vmeshatel'stva pri psikhicheskikh travmakh, vznikshikh vslledstvie masshtabnykh katastrof [Intervention strategy for mental injuries resulting from large-scale disasters]. *Detskaya i podrostkovaya psikhoterapiya*. Pod red. D.A. Leina, E. Millera. SPb.: Piter, 2001, pp. 275—308. (In Russ.).

10. Cahil H. Strategies for supporting student and teacher wellbeing post-emergency. *Six-monthly Journal on Learning, Research and Innovation in Education*, 2020, no. 12(1).

11. Hebert M., Langevin R., Oussaid E. Cumulative childhood trauma, emotion regulation, dissociation, and behavior problems in school-aged sexual abuse victims.

### Литература

1. Артамонова Е.Г., Васильева Н.Н., Глазунова Е.А. Создание и обеспечение системы экстренной психологической помощи в составе психологической службы в системе образования Российской Федерации // Образование личности. 2021. № 3—4. С. 95—137.

2. Баева И.А., Гаязова Л.А., Кондакова И.В., Лактионова Е.Б. Психологическая безопасность личности и ценности подростков и молодежи // Психологическая наука и образование. 2020. Том 25. № 6. С. 5—18.

3. Бурлакова Н.С. Психическое развитие детей, переживших массовые бедствия: от изучения последствий к проектированию развития на основе культурно-исторического анализа // Национальный психологический журнал. 2018. № 1(29). С. 17—29.

4. Быховец Ю.В., Падун М.А. Личностная тревожность и регуляция эмоций в контексте изучения посттравматического стресса // Клиническая и специальная психология. 2019. № 1. С. 78—89.

5. Голубева О.Ю. Организация оказания экстренной психологической помощи пострадавшим в чрезвычайных ситуациях // Материалы научно-практической конференции «Междисциплинарные подходы к изучению психического здоровья человека и общества». 2019. С. 36—43.

6. Карапетян Л.В., Редина Е.А. Мотивационная готовность психологов к оказанию экстренной психологической помощи пострадавшим в чрезвычайных ситуациях // Медико-биологические и социально-психологические проблемы безопасности в чрезвычайных ситуациях. 2021. № 1. С. 107—115.

7. Рядинская Е.Н. Особенности адаптационных ресурсов мирных жителей, проживающих в зоне вооруженного конфликта, в контексте изучения

*Journal of Affective Disorders*, 2018, no. 1, pp. 306—312.

12. Nemiro A., Hijazi Z., O'connell R. Mental health and psychosocial wellbeing in education: The case to integrate core actions and interventions into learning environments. *Intervention*, 2022, no. 1, pp. 36—45.

13. Sapadin K., Hollander B.L.G. Distinguishing the need for crisis mental health services among college students: Correction to Sapadin and Hollander. *Psychological services*, 2021, no. 2, pp. 317—326.

14. Terr L.C. Childhood traumas: An outline and overview. *American Journal of Psychiatry*, 1991, no. 14(8), pp. 10—20.

15. Xiao H., Carney D.M., Janis S.J. Are we in crisis? National mental health and treatment trends in college counseling centers. *Psychological Services*, 2017, no. 4, pp. 407—415.

трансформаций личности // Клиническая и специальная психология. 2017. Том 6. № 4. С. 105—124.

8. Шойгу Ю.С., Тимофеева Л.Н., Толубаева Н.В. Особенности оказания экстренной психологической помощи при переживании утраты в чрезвычайных ситуациях // Национальный психологический журнал. 2021. № 1(41). С. 115—126.

9. Юл У., Уильямс Р.М. Стратегия вмешательства при психических травмах, возникших вследствие масштабных катастроф // Детская и подростковая психотерапия / Под ред. Д.А. Лейна, Э. Миллера. СПб.: Питер, 2001. С. 275—308.

10. Cahil H. Strategies for supporting student and teacher wellbeing post-emergency // Six-monthly Journal on Learning, Research and Innovation in Education. 2020. № 12(1).

11. Hebert M., Langevin R., Oussaid E. Cumulative childhood trauma, emotion regulation, dissociation, and behavior problems in school-aged sexual abuse victims // *Journal of Affective Disorders*. 2018. № 1. P. 306—312.

12. Nemiro A., Hijazi Z., O'connell R. Mental health and psychosocial wellbeing in education: The case to integrate core actions and interventions into learning environments // *Intervention*. 2022. № 1. P. 36—45.

13. Sapadin K., Hollander B.L.G. Distinguishing the need for crisis mental health services among college students: Correction to Sapadin and Hollander // *Psychological services*. 2021. № 2. P. 317—326.

14. Terr L.C. Childhood traumas: An outline and overview // *American Journal of Psychiatry*. 1991. № 14(8). P. 10—20.

15. Xiao H., Carney D.M., Janis S.J. Are we in crisis? National mental health and treatment trends in college counseling centers // *Psychological Services*. 2017. № 4. P. 407—415.

### **Information about the authors**

*Olga A. Ulyanina*, Doctor of Psychology, Corresponding member of the RAE, Head of the Federal Coordination Center for the Provision of Psychological Services in the Education System of the Russian Federation, Moscow State University of Psychology & Education, Moscow, Russia, ORCID: <https://orcid.org/0000-0001-9300-4825>, e-mail: [ulyaninaoa@mgppu.ru](mailto:ulyaninaoa@mgppu.ru)

*Larisa A. Gayazova*, PhD in Psychology, Deputy Head of the Federal Coordination Center for the Provision of Psychological Services in the Education System of the Russian Federation, Moscow State University of Psychology & Education, Moscow, Russia, ORCID: <https://orcid.org/0000-0003-0542-6687>, e-mail: [gayazovala@mgppu.ru](mailto:gayazovala@mgppu.ru)

*Anna V. Ermolaeva*, Head of the Department of Emergency Psychological Assistance of the Federal Coordination Center for the Provision of Psychological Services in the Education System of the Russian Federation, Moscow State University of Psychology & Education, Moscow, Russia, ORCID: <https://orcid.org/0000-0001-5623-6248>, e-mail: [ermolaevaav@mgppu.ru](mailto:ermolaevaav@mgppu.ru)

*Kseniya A. Faizullina*, Head of the Department of Scientific and Methodological Support of the Federal Coordination Center for the Provision of Psychological Services in the Education System of the Russian Federation, Moscow State University of Psychology & Education, Moscow, Russia, ORCID: <https://orcid.org/0000-0002-2985-9332>, e-mail: [fajzullinaka@mgppu.ru](mailto:fajzullinaka@mgppu.ru)

### **Информация об авторах**

*Ульянина Ольга Александровна*, доктор психологических наук, член-корреспондент РАО, руководитель Федерального координационного центра по обеспечению психологической службы в системе образования Российской Федерации, ФГБОУ ВО «Московский государственный психолого-педагогический университет» (ФГБОУ ВО МГППУ), г. Москва, Российская Федерация, ORCID: <https://orcid.org/0000-0001-9300-4825>, e-mail: [ulyaninaoa@mgppu.ru](mailto:ulyaninaoa@mgppu.ru)

*Гаязова Лариса Альфисовна*, кандидат психологических наук, заместитель руководителя Федерального координационного центра по обеспечению психологической службы в системе образования Российской Федерации, ФГБОУ ВО «Московский государственный психолого-педагогический университет» (ФГБОУ ВО МГППУ), г. Москва, Российская Федерация, ORCID: <https://orcid.org/0000-0003-0542-6687>, e-mail: [gayazovala@mgppu.ru](mailto:gayazovala@mgppu.ru)

*Ермолаева Анна Валериевна*, руководитель отдела экстренной психологической помощи Федерального координационного центра по обеспечению психологической службы в системе образования Российской Федерации, ФГБОУ ВО «Московский государственный психолого-педагогический университет» (ФГБОУ ВО МГППУ), г. Москва, Российская Федерация, ORCID: <https://orcid.org/0000-0001-5623-6248>, e-mail: [ermolaevaav@mgppu.ru](mailto:ermolaevaav@mgppu.ru)

*Файзуллина Ксения Александровна*, начальник отдела научно-методического обеспечения Федерального координационного центра по обеспечению психологической службы в системе образования Российской Федерации, ФГБОУ ВО «Московский государственный психолого-педагогический университет» (ФГБОУ ВО МГППУ), г. Москва, Российская Федерация, ORCID: <https://orcid.org/0000-0002-2985-9332>, e-mail: [fajzullinaka@mgppu.ru](mailto:fajzullinaka@mgppu.ru)

Получена 23.05.2022

Received 23.05.2022

Принята в печать 30.06.2022

Accepted 30.06.2022

# The Results of the First Half of the Implementation of Interdepartmental Comprehensive Plans for the Accessibility of all Levels of Education for People with Disabilities and Disorders

**Elena Yu. Klochko**

All-Russian Organization of Parents of Disabled Children and Disabled People over 18 Years of Age with Mental and Other Disabilities Who Need Representation of their Interests (VORDI), Moscow, Russia  
ORCID: <https://orcid.org/0000-0001-9169-4762>, e-mail: [vordi.info@gmail.com](mailto:vordi.info@gmail.com)

**Vitalyi V. Rubtsov**

Moscow State University of Psychology & Education, Moscow, Russia  
ORCID: <https://orcid.org/0000-0002-2050-8587>, e-mail: [rubtsovvv@mgppu.ru](mailto:rubtsovvv@mgppu.ru)

The materials of the conference dedicated to the results of the first half of the implementation of the Interdepartmental Comprehensive Plan to increase the accessibility of secondary vocational and higher education for people with disabilities and disorders, as well as the Interdepartmental Comprehensive Plan for the development of inclusive general and additional education, children's recreation, and the creation of special conditions have been published for students with disabilities and disorders. The conference took place on July 29, 2022 in Moscow (Russia).

**Keywords:** conference, inclusive education, disability, limited health opportunities.

---

**For citation:** Klochko E.Yu., Rubtsov V.V. The Results of the First Half of the Implementation of Interdepartmental Comprehensive Plans for the Accessibility of all Levels of Education for People with Disabilities and Disorders. *Psikhologicheskaya nauka i obrazovanie = Psychological Science and Education*, 2022. Vol. 27, no. 4, pp. 100—109. DOI: <https://doi.org/10.17759/pse.2022270410> (In Russ.).

# Итоги первого полугодия реализации межведомственных комплексных планов по доступности всех уровней образования, отдыха, профориентации и занятости для лиц с инвалидностью и ограниченными возможностями здоровья

## **Клочко Е.Ю.**

Совет Всероссийской организации родителей детей-инвалидов и инвалидов старше 18 лет с ментальными и иными нарушениями, нуждающихся в представительстве своих интересов (ВОРДИ), г. Москва, Российская Федерация  
ORCID: <https://orcid.org/0000-0001-9169-4762>, e-mail: [vordi.info@gmail.com](mailto:vordi.info@gmail.com)

## **Рубцов В.В.**

ФГБОУ ВО «Московский государственный психолого-педагогический университет» (ФГБОУ ВО МГППУ), г. Москва, Российская Федерация  
ORCID: <https://orcid.org/0000-0002-2050-8587>, e-mail: [rubtsovvv@mgppu.ru](mailto:rubtsovvv@mgppu.ru)

Опубликованы материалы конференции, посвященной итогам первого полугодия реализации Межведомственного комплексного плана мероприятий по повышению доступности среднего профессионального и высшего образования для инвалидов и лиц с ограниченными возможностями здоровья, а также Межведомственного комплексного плана мероприятий по развитию инклюзивного общего и дополнительного образования, детского отдыха, созданию специальных условий для обучающихся с инвалидностью, с ограниченными возможностями здоровья. Конференция состоялась 29 июля 2022 года в Москве (Россия).

**Ключевые слова:** конференция, инклюзивное образование, инвалидность, ограниченные возможности здоровья.

---

**Для цитаты:** *Клочко Е.Ю., Рубцов В.В.* Итоги первого полугодия реализации межведомственных комплексных планов по доступности всех уровней образования, отдыха, профориентации и занятости для лиц с инвалидностью и ограниченными возможностями здоровья // Психологическая наука и образование. 2022. Том 27. № 4. С. 100—109. DOI: <https://doi.org/10.17759/pse.2022270410>

On July 29, 2022, in accordance with clause 5 of the Action Plan of the Council under the Government of the Russian Federation on guardianship in the social sphere for 2022, the following conference was held: “The Results of the first half of the implementation of the Interdepartmental Comprehensive Action Plan to increase the accessibility of secondary vocational and higher education for people with

disabilities and disorders, including vocational guidance and employment of these persons and the Interdepartmental Comprehensive Action Plan for the Development of Inclusive General and Additional Education, Children’s Recreation, Creation of Special Conditions for Students with Disabilities and Disorders for a Long-Term Period (until 2030)” (hereinafter referred to as the Conference).

Among the members of the Conference there were representatives of federal and regional executive authorities in the field of education and social protection of the population, educational organizations of higher education, chief freelance psychologists, heads of public organizations and non-profit organizations (NPOs). The conference was held in a mixed format at the site of Moscow State University of Psychology and Education. In total, 421 people participated in it<sup>1</sup>.

The Commissioner for the Children's Rights under the President of the Russian Federation M.A. Lvova-Belova presented the report "Proposals and recommendations on the implementation of the Interdepartmental Comprehensive Plan (ICP) from the Institute of Commissioners of Children's Rights".

Among the main speakers of the Conference were the Deputy Minister of Science and Higher Education of the Russian Federation, D.V. Afanasiev, Deputy Minister of Education of the Russian Federation, D.E. Gribov, Deputy Minister of Labor and Social Protection of the Russian Federation, A.V. Vovchenko. In their speeches, the representatives of the federal executive authorities informed the Conference participants about the current state and intermediate results of the implementation of ICP for the period January-July 2022.

The Heads of regional executive authorities in the field of education O.G.

Antonova (Ivanovo region), E.V. Shamonova (Primorsky region), M.V. Bykova (Tambov region), A.N. Golovnin (Novosibirsk region), M.A. Teteruk (Volgograd region) in their reports shared information about regional experience, problems and possible solutions at the initial stage of the implementation of the Interdepartmental Comprehensive Plans for the Accessibility of All Levels of Education for Persons with Disabilities and Disorders<sup>2</sup>.

The speakers noted that the following is of fundamental importance for the

- successful implementation of Ru events:
- organization of interdepartmental interaction and coordination of the work of those responsible for the implementation of ICP;
- enhancing the role of regional education systems to achieve the goals and objectives of ICP;
- wider involvement of professional and public organizations, as well as NPOs working in the field of educational and social inclusion, in the implementation of ICP.

An expert assessment of the first results of the implementation of ICP activities and proposals for their adjustment were presented in the reports of the Council members E.Yu. Klochko and V.V. Rubtsov.

E.Yu. Klochko informed the participants about the results of the analysis of regional plans and first results of their implementation. The expert noted the importance of ICP for the long-term development of inclusive education at all its levels. She emphasized that the document should become the basis for real changes in the development of inclusive education in the country until 2030.

The results of the analysis of regional plans showed that in 44.6% of the constituent entities of the RF interdepartmental plans were approved only by the regional executive authority in the field of education, in 18% of the subjects the plans were approved by a joint order of the executive authorities in the field of education, social protection and health care, in 37% regions the plan was approved by the Government of the constituent entity of the Russian Federation. Moreover, as the examination showed, the quality of the Plans and the interagency of approaches on the implementation of measures indicated in it directly depends on who approved the Plan

<sup>1</sup> See Attachment 1 for the Conference Program .

<sup>2</sup> Proposals and recommendations of the Conference participants on the implementation of ICP events are provided in Attachment 2 (<https://drive.google.com/drive/folders/1lzY9R4vUgOOAymKZZO8MbJKom2KWtIY-?usp=sharing> ).

of the subject. It is noteworthy that public organizations of the disabled and specialized NPOs were involved in the development of regional interdepartmental plans only in 21% of the subjects of the Russian Federation, in the rest of the subjects such a cooperation has not been built. At the same time, the Ministry of Education recommended that the subjects involve public organizations of the disabled, regional parent organizations and specialized SO NPOs in the development of regional plans.

In 42.2% of the constituent RF entities, ICP provides for interdepartmental interaction, 12% of the subjects provide for interaction only with regional authorities in the field of social protection. The rest of the subjects, when developing the interdepartmental plan, did not focus on interdepartmental interaction.

NPOs, parental and public organizations of the disabled are not properly involved in the implementation of ICP at the regional level: only 31% of the constituent RF entities assume cooperation with these organizations in the implementation and monitoring of strategic and practical changes in the development of the inclusive process in education. At the same time, the quality of strategic planning largely depends on the specificity of the result of the planned activities. In ICP of most regions (66%), the planned activities are not defined specifically and require further development.

Taking into account the results of the analysis, the report formulates and gives specific proposals and recommendations for the implementation of ICP. The effective measures are the following:

- in accordance with the interdepartmental nature of ICP, to recommend to the constituent RF entities, the approval of ICP and control over its implementation by the executive authorities of the regions the level of which ensures interdepartmental interaction for the departments of education, social protection, healthcare, culture and sports;
- holding regular strategic sessions with regional authorities in the field of education,

social protection and healthcare to discuss consolidated requirements for regional plans and their implementation for the planned period in order to develop inclusive general and supplementary education;

- in order to create a resource network of regional organizations that develop inclusive pre-school, general and supplementary education, the implementation of resource, coordination and scientific and methodological support, as well as expert activities in terms of the implementation of ICP, to create the Federal Resource Center for the Development of Inclusive Education on the basis of MSUPE;

- amend paragraph 4.1 of the federal ICP on the development of early correctional care, taking into account the development of an early care system for children from 0 to 3 years old in accordance with the Concept of a system of comprehensive rehabilitation and habilitation of the disabled, including children with disorders developed in the Russian Federation for the period up to 2025, approved by Decree of the Government of the RF dated December 18, 2021 No. 3711-r;

- supplement the activities of ICP with measures to provide educational institutions with special didactic equipment, special technical and assistive means, including means of alternative additional communication;

- to consider the issue of creating a working group under the Expert Council of the Ministry of Education on the comprehensive support of children with severe and multiple developmental disorders, to introduce a separate item in ICP in this area;

- involve regional organizations of the Ministry of Culture and the Ministry of Sports in the implementation of the Intermediate Program and training of personnel for work in additional education, the development and network implementation of adapted basic educational programs, ensuring the availability of additional education organizations and the services provided for children with disabilities and disorders;

- to recommend the wide involvement of public organizations of the disabled, special-



ized SO NPOs at the level of the constituent entities of the RF in the implementation and monitoring of strategic and practical changes in the development of an inclusive process in education, as well as the study of parental requests on this topic, including inclusive summer holidays, specialized camp shifts, summer camps in educational organizations.

V.V. Rubtsov, in his report, dwelled on the organizational and managerial conditions that ensure the success of the implementation of ICP activities and the systematic development of inclusive education at all its levels. Within the framework of ICP, these conditions include the models, standards and standardized methods of working with the problems of educational and social inclusion that are being developed. These are, first of all, those indicated in the relevant ICP events:

- a typical model of an inclusive educational organization (taking into account the principle of continuity of education, it is proposed to include in ICP the development of a model of an inclusive organization of secondary vocational education and a model of an inclusive educational organization of higher education — clause I.1.1);

- a new model for the activities of centers for psychological, pedagogical, medical and social assistance that contribute to the development of comprehensive support for children with disabilities and disorders (clause V.1);

- PMPK performance standard (clause V.2);

- a standard (standardized method) for identifying and evaluating the best practices of social and educational inclusion, based on the principle of evidence (the method determines the nature of the activities of Laboratories created on the basis of universities that have the Resource Educational and Methodological Centers (REMCs) in their structure — items II.4.2., I.4.6);

- a pilot model of the rehabilitation of a student with a disability on the basis of the RGSU and MSUPE (clause II.4.1).

The expert proposed to clarify the wording and tasks for the implementation of relevant activities within the framework of the IPC, pay special attention to the novelty and requirements for the implementation of these activities.

According to V.V. Rubtsov, it is also advisable to specifically consider the development and adoption of the National Strategy for the Development of Inclusive Education in the Russian Federation. And although the development of such a Strategy formally goes beyond the scope of ICP, the demand for it is currently growing, which is associated with new social risks and challenges.

Under the new conditions, the Strategy can become an important guideline in solving the problems of educational and social inclusion, and, as a result, a relevant tool for the qualitative implementation of ICP activities.

During the subsequent discussion on the implementation of ICP, the Conference participants, representatives of the professional community and the parent community made proposals that should also be taken into account when adjusting the activities of ICP.

*D.G. Gurtskaya*, in her speech, spoke about the practice of the Diana Gurtskaya Center for Social Integration, which implements additional education programs for blind children, and suggested using the experience of this center when involving children with disabilities in socio-cultural activities (provided for in clause II.3.7. ICP).

*F.R. Mukhamedzhan* presented information about the systematic experience of the Art, Science and Sport Charitable Foundation with people with visual impairments, as well as about the projects implemented by the Foundation aimed at improving the competencies necessary for teachers and employees of educational organizations to communicate with students with disabilities. *F.R. Mukhamedzhan* proposed to include a special educational course in the advanced training programs for the teaching staff of universities, aimed at developing the competencies of the teaching staff in terms of tutor support for students with

visual impairments (the proposal corresponds to clause II.2.6. ICP).

Specific proposals for adjusting the activities of ICP were made on the basis of a detailed analysis verified by the head of the REMC network *A.A. Bikbulatova*. She noted the need to develop mechanisms for cooperation between ROIB, BPOO, REMC SPO, PMPK, SZN with universities in the framework of interdepartmental interaction; as well as inclusion in regional programs, regulations of road maps, the conclusion of relevant agreements (clause I.2.3., clause I.4.1.).

It is also proposed to conduct an annual advanced training of experts participating in evaluation activities on the organization of inclusive vocational education and the creation of special conditions for the receipt of vocational education by disabled people and persons with disorders, on the basis of universities where REMCs operate, as well as on the basis of specialized federal centers (p. I.2.5.) A package of rewordings, which must be introduced into the relevant paragraphs of ICP has been presented.

*M.A. Teteruk*, in her report, spoke about the intermediate results of the implementation of ICP in the Volgograd region and presented new standards for financing education for students with disabilities developed at the regional level in accordance with the Federal State Educational Standard for students with disabilities, depending on the nosology. The norms for financing education for such students being implemented in the Volgograd Region can be taken as the basis for further work within the framework of the implementation of clause I.1.5. ICP.

In the report of *A.L. Bitova* made suggestions that should be taken into account when implementing the activities of ICP:

— to create an interdepartmental working group under the Ministry of Education of Russia, including representatives of the Ministry of Education of the RF, the Ministry of Science and Higher Education of the RF, the Ministry of Labor and Social Protection of the RF, the Ministry of Health of the RF,

Rosobrnadzor, ICP RAO, VORDI, the “Value of Everyone” Alliance, other public organizations and prepare coordinated proposals for making additions to interdepartmental comprehensive plans;

— to prepare recommendations to the executive authorities of the constituent entities of the RF on the creation of regulatory, organizational, methodological, material, technical, personnel, financial and other conditions for the development of high-quality education for children with severe multiple developmental disorders (SMDD);

— in order to organize interaction and continuity in the education and socialization of students and the use of special individual development program (SIDP) as a common tool for achieving the goals of forming life competencies, develop and approve an exemplary procedure for interdisciplinary interaction between educational organizations and social (inpatient) service institutions in which children and adults with disabilities live intelligently, with SMDD.

*S.V. Alyokhina*, in her speech, provided information on the progress in the implementation of clause I.1.1. of IPC, in terms of the development of unified criteria for assessing an inclusive educational organization in the field of general, additional education and the Typical model of an inclusive educational organization, indicated the need to develop models of this type to focus on the principle of continuity of inclusive education, to develop models for all stages of children’s education (planned by the Plan for 2023).

The participants of the Conference agreed with the proposal that the primary problem, the solution of which will make it possible to better organize the timely and high-quality implementation of the entire range of IPC activities, could be the holding of strategic sessions, where the stages and conditions for the implementation of specific activities will be discussed. In this regard, it was proposed to organize the 1st strategic session “Development and testing on the basis of the universities of FGBOU VO “MSUPE” and FGBOU VO

“RGSU” of a pilot model of rehabilitation of a student with disabilities, taking into account the available variant possibilities of these organizations (university clinic, sanatoriums, etc.)” in September 2022 (Pyatigorsk, responsible A.A. Bikbulatova, G.G. Saitgalieva, MSUPE, RGSU), the 2nd strategic session “Identification, evaluation and replication of the best inclusive practices based on the method of evidence” — in October 2022 (Moscow, MSUPE, ASI; responsible: V.V. Rubtsov, E.Yu. Klochko, A.A. Bikbulatova).

The Conference participants *decided*:

1. To create a working group consisted of interested members of the Council, representatives of the Ministry of Education and Science of Russia, the Ministry of Education of Russia, the Ministry of Labor of Russia, in order to summarize proposals and recommendations for adjusting and implementing the

activities of the IPC. By September 15, 2022, submit the agreed proposals for adjusting ICP to the Council (responsible E.Yu. Klochko, V.V. Rubtsov).

2. To agree and submit to the Council the Plan for holding strategic sessions on the implementation of the most relevant activities of ICP for the period up to June 2023. (Deadline: September 10, 2022, responsible E.Yu. Klochko, V.V. Rubtsov, A.A. Bikbulatova, G.G. Saitgalieva).

The participants expressed their gratitude to the Council and its leader T.A.

Golikova, highly appreciated the work of the Conference as an important stage in the implementation of ICP events, and confirmed their intention to actively participate in the implementation.

*By order of the Council:  
E.Yu. Klochko, V.V. Rubtsov*

The discussion of the participants organized at the Conference can be found at the links:

<https://rutube.ru/video/aa22fa83eac972904ec635232503d0bb>

[https://vk.com/video-38093474\\_456239332](https://vk.com/video-38093474_456239332)

### **Information about the authors**

*Elena Y. Klochko*, Chairman of the Board, All-Russian organization of parents of disabled children and Disabled People over 18 Years of Age with Mental and Other Disabilities Who Need Representation of Their Interests (VORDI), Moscow, Russia, ORCID: <https://orcid.org/0000-0001-9169-4762>, e-mail: [vordi.info@gmail.com](mailto:vordi.info@gmail.com)

*Vitaliy V. Rubtsov*, Doctor of Psychology, Academician of the Russian Academy of Education, Professor of the UNESCO Department "Cultural and Historical Psychology of Childhood", President of the Moscow State University of Psychology and Education, Moscow, Russia, ORCID: <https://orcid.org/0000-0002-2050-8587>, e-mail: [rubtsovvv@mgppu.ru](mailto:rubtsovvv@mgppu.ru)

### **Информация об авторах**

*Клочко Елена Юрьевна*, председатель Совета Всероссийской организации родителей детей-инвалидов и инвалидов старше 18 лет с ментальными и иными нарушениями, нуждающихся в представительстве своих интересов (ВОРДИ), г. Москва, Российская Федерация, ORCID: <https://orcid.org/0000-0001-9169-4762>, e-mail: [vordi.info@gmail.com](mailto:vordi.info@gmail.com)

*Рубцов Виталий Владимирович*, доктор психологических наук, академик РАО, профессор кафедры ЮНЕСКО «Культурно-историческая психология детства», президент, ФГБОУ ВО «Московский государственный психолого-педагогический университет» (ФГБОУ ВО МГППУ), г. Москва, Российская Федерация, ORCID: <https://orcid.org/0000-0002-2050-8587>, e-mail: [rubtsovvv@mgppu.ru](mailto:rubtsovvv@mgppu.ru)

**Attachment 1.**



**СОВЕТ ПРИ ПРАВИТЕЛЬСТВЕ РФ**  
по вопросам попечительства в социальной сфере

**COUNCIL on GUARDIANSHIP**  
under the GOVERNMENT of the RUSSIAN FEDERATION



МИНИСТЕРСТВО НАУКИ  
И ВЫСШЕГО ОБРАЗОВАНИЯ  
РОССИЙСКОЙ ФЕДЕРАЦИИ

MINISTRY of SCIENCE  
and HIGH EDUCATION PROTECTION  
of the RUSSIAN FEDERATION



МИНИСТЕРСТВО ПРОСВЕЩЕНИЯ  
РОССИЙСКОЙ ФЕДЕРАЦИИ

MINISTRY of EDUCATION  
of the RUSSIAN FEDERATION



**МИНИСТЕРСТВО ТРУДА  
И СОЦИАЛЬНОЙ ЗАЩИТЫ**  
РОССИЙСКОЙ ФЕДЕРАЦИИ

MINISTRY of LABOUR  
and SOCIAL of the POPULATION  
of the RUSSIAN FEDERATION

Council on Guardianship under the Government of the Russian Federation

with the support of

Ministry of Higher Education and Science of the Russian Federation

Ministry of Education of the Russian Federation

Ministry of Labor and Social Protection of the Population of the Russian Federation

**Conference**

**The Results of the First Half of the Implementation of Interdepartmental  
Comprehensive Plans for the Accessibility of all Levels of Education  
for People with Disabilities and Disorders**

**PROGRAM**

July, 29 2022

10.00—13.00	<b>The Conference: MSUPE site</b>
10.00—10.15	<i>Lyova-Belova Maria Alekseevna, Commissioner for Children's Rights under the President of the Russian Federation</i> — “Suggestions and recommendations for the implementation of ICP from the Institute of Commissioners for Children's Rights”
Moderator:	<i>Klochko Elena Yuryevna</i> , Head of the section “Children and Adults with Disabilities” of the Council on Guardianship under the Government of the Russian Federation, Chairman of the Council of the All-Russian Organization of Parents of Disabled Children (VORDI) <i>Rubtsov Vitaly Vladimirovich</i> , Head of the section “Education and Upbringing” of the Council under the Government on Guardianship of the Russian Federation
10.15—11.00	<p><b><i>I. The Results of the first half of the implementation of the Interdepartmental Comprehensive Plan of to increase the accessibility of secondary vocational and higher education for the disabled and persons with disorders, including career guidance and employment of these persons and the Interdepartmental Comprehensive Plan for the development of inclusive general and additional education, children's recreation, creating special conditions for students with disabilities, with limited health opportunities for a long-term period (until 2030)</i></b></p> <p style="text-align: center;"><b>Main Reports (up to 15 min):</b></p> <p><i>Afanasiev Dmitry Vladimirovich</i>, Deputy Minister of Science and Higher Education of the Russian Federation — “Vocational guidance, training support and employment assistance for people with disabilities in the higher education system in the context of the implementation of ICP”</p> <p><i>Bugaev Alexander Vyacheslavovich</i>, First Deputy Minister of Education of the Russian Federation — “On the intermediate results of the implementation of the Interdepartmental Comprehensive Plan for the development of inclusive general and additional education, children's recreation, creating special conditions for students with disabilities and disorders for the long-term period (until 2030) in 2022”</p> <p><i>Vovchenko Alexey Vitalievich</i>, Deputy Minister of Labor and Social Protection of the Population of the Russian Federation — “On the implementation of Interdepartmental Comprehensive Plans for the accessibility of all levels of education for people with disabilities and disorders in the context of the implementation of the activities of the state program “Accessible Environment”, as well as measures to increase the employment of the disabled”</p>
11.00—11.20	<p style="text-align: center;"><b>Expert Assessment of the First Results of the Implementation of Plans and Proposals for their Adjustment (reports up to 10 minutes):</b></p> <p><i>Klochko Elena Yuryevna</i>, Head of the section “Children and Adults with Disabilities” of the Council on Guardianship under the Government of the Russian Federation, Chairman of the Council of the All-Russian Organization of Parents of Disabled Children (VORDI) <i>Rubtsov Vitaly Vladimirovich</i>, Head of the section “Education and Upbringing” of the Council on Guardianship under the Government of the Russian Federation.</p>

11.20—12.00	<p><b>2. On the Intermediate Results of the Implementation of the Interdepartmental Comprehensive Plans: Regional Experience — Problems and Responsible Decisions</b> Reports (up to 10 min)</p> <p><i>Antonova Olga Genrikhovna</i>, Head of the Department of Education of the Ivanovo Region</p> <p><i>Shamonova Elvira Viktorovna</i>, Deputy Chairman of the Government of the Primorsky Territory, Minister of Education of the Primorsky Territory</p> <p><i>Bykova Marina Vasilievna</i>, Deputy Head of the Department of Education and Science of the Tambov Region</p> <p><i>Golovnin Andrey Nikolaevich</i>, Deputy Minister — Head of the Department of Vocational Education and Training of Labor Resources of the Ministry of Education of the Novosibirsk Region</p>
12.00—12.50	<p><b>3. Discussion: Risks of Implementation, Positive Experience and Proposals for the Implementation of the Activities of ICP</b> Reports (up to 5 min)</p> <p><i>Gurtskaya Diana Gudaevna</i>, Member of the Civic Chamber of the Russian Federation, Chairman of the Commission on Accessible Environment and Development of Inclusive Practices — “On the involvement of students with disabilities and disorders in social and cultural activities”</p> <p><i>Mukhomedzhan Fatima Rafikovna</i>, Director of the Charitable Foundation “Art, Science and Sport” — “On the implementation of a set of measures to support increasing the accessibility of education for people with visual impairments and the inclusion of students with disabilities in socio-cultural activities: the systematic experience of the Charitable Foundation “Art, Science and sport”</p> <p><i>Bikbulatova Albina Akhatovna</i>, Vice-Rector for Educational Affairs of MGUPP, Head of the Project Office of the REMC of the Ministry of Education and Science of Russia — “On the implementation of ICP measures for the training of disabled persons and persons with disorders by the Federal Network of Resource Educational and Methodological Centers”</p> <p><i>Teteruk Marina Anatolyevna</i>, Deputy Chairman of the Committee for Education, Science and Youth Policy of the Volgograd Region — “On the establishment of coefficients for financing education for students with disabilities and disorders: the experience of the Volgograd Region”</p> <p><i>Bitova Anna Lvovna</i>, Chairman of the Board of RBOO “Center for Curative Pedagogics” — “Monitoring of ICP in terms of education and recreation for children with severe and multiple developmental disorders (SMDD)”</p> <p><i>Alekhina Svetlana Vladimirovna</i>, Director of the Institute of Problems of Inclusive Education of FGBOU VO MSUPE — “The model of an inclusive educational organization in the context of the implementation of ICP activities”</p> <p><b>Exchange of opinions (optional)</b></p>
12.50—13.00	<p><b>The results of the Conference — V.V. Rubtsov</b></p>